

**AGU
100**
ADVANCING EARTH
AND SPACE SCIENCE

FALL MEETING
Washington, D.C. | 10-14 Dec 2018

WHAT
SCIENCE
STANDS
FOR

2018 MEETING GRID

Legend

Sections

U	Union	NS	Near-Surface Geophysics
AE	Atmospheric and Space Electricity	NG	Nonlinear Geophysics
A	Atmospheric Sciences	OS	Ocean Sciences
B	Biogeosciences	PP	Paleoceanography and Paleoclimatology
C	Cryosphere	P	Planetary Sciences
EP	Earth and Planetary Surface Processes	PA	Public Affairs
IN	Earth and Space Science Informatics	S	Seismology
ED	Education	SI	Societal Impacts and Policy Sciences
G	Geodesy	SA	SPA-Aeronomy
GH	GeoHealth	SM	SPA-Magnetospheric Physics
GP	Geomagnetism, Paleomagnetism and Electromagnetism	SH	SPA-Solar and Heliospheric Physics
GC	Global Environment Change	DI	Study of the Earth's Deep Interior
H	Hydrology	T	Tectonophysics
MR	Mineral and Rock Physics	TT	Tutorial Talks
NH	Natural Hazards	V	Volcanology, Geochemistry, and Petrology

Co-Sponsor Organizations

AGU has agreements with the organizations listed below to “sponsor” sessions within specified Sections.

AMS	American Meteorological Society
EGU	European Geosciences Union
GS	Geochemical Society
IAS	International Association of Sedimentologists
JpGU	Japan GeoScience Union
MSA	Mineralogical Society of America
NAGT-GER	
SEG	Society of Exploration Geophysicists
SEPM	Society for Sedimentary Geology

HOW TO READ A SESSION NUMBER

Session Number. A session number designates the section, or other sponsoring group, and chronology of the presentation.



Ex: A21C = Atmospheric Sciences, Tuesday, a.m., concurrent session C

Day	Time	Concurrent Session
1 = Monday	1 = AM	A
2 = Tuesday	2 = AM	B
3 = Wednesday	3 = PM	C
4 = Thursday	4 = PM	D
5 = Friday	5 = Evening	

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
U11A	○	Moving the Needle Together: Valuing Nontraditional Approaches to Faculty Tenure, Promotion, and Advancement	8:00	10:00		Convention Center	202A	ED, PA		Science & Society
U11B	●	Student Engagement to Enhance Development: Outstanding Student Presentation Award Winners from 2017 Fall Meeting IV eLightning	8:00	10:00		Convention Center	eLightning Theater I	ED		Centennial
A11A	○	Advances in Atmospheric Remote Sensing Techniques and Theories I	8:00	10:00		Convention Center	151B			
A11B	○	Aerosol, Cloud, Precipitation, and Radiation Studies over the Southern Ocean I	8:00	10:00		Convention Center	152A			
A11C	○	Air Pollution, Aerosol, and Climate Interactions in Asia I	8:00	10:00		Convention Center	144A-C	GC, GH		Extreme Events & Hazards
A11D	○	Data Assimilation, Reanalysis, and Observing System Simulation Experiments: Theory and Applications I	8:00	10:00		Convention Center	152B	C, GC, H, NG	AMS, EGU	Data & Emerging Technologies
A11E	○	Process-Oriented Analysis of Cloud and Precipitation Physics I	8:00	10:00		Convention Center	151A			Climate
A11F	●	Advances in Data Assimilation, Inverse Modeling, and Forecasting of Trace Gases and Aerosols I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, IN, NG		
A11G	●	Aerosol Exchange Across the Air-Sea Interface: Deposition and Emission I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, OS		Climate
A11H	●	Aerosol Influence on Ice-Containing Clouds Through Various Modes of Ice Nucleation I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A11I	●	Cloud Properties, Processes, and Uncertainties: Observations and Analysis I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A11J	●	Convective Clouds: Processes, Dynamics, and Links to Weather and Climate I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A11K	●	Extreme Weather Events: Forecast Skill, Uncertainty Quantification, and Impact Modeling II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, NH, SI		Extreme Events & Hazards
A11L	●	Marine Aerosols, Trace Gases, and Clouds over the North Atlantic I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, OS		Climate
A11M	●	Microphysical and Macrophysical Properties and Processes of Ice and Mixed-Phase Clouds: Linking in Situ, Remote Sensing Observations and Multiscale Models I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
A11N	●	Monsoons: Observations, Subseasonal, Seasonal, and Interannual to Decadal Variability, Forecast, Climate Change, and Extremes I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A11O	●	Progresses in Understanding Atmospheric Convection II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
AE11A	○	Thunderstorm Electrification and Lightning I	8:00	10:00		Convention Center	201			Extreme Events & Hazards
AE11B	●	Thunderstorm Electrification and Lightning II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
B11A	○	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change I	8:00	10:00		Convention Center	143A-C	GC		Extreme Events & Hazards
B11B	●	Forest Ecohydrology Under a Changing Climate Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H		Climate
B11C	●	From Genes to Ecosystems: Linking Structural and Functional Genomics to the Structure and Function of the Entire Ecosystem Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
B11D	●	New Vistas in Isotopologue Research Posters	8:00	12:20		Convention Center	Hall A-C (PH)	PP		Data & Emerging Technologies
B11E	●	Plant Traits, Biogeochemical Cycles, and Optimality-Driven Model Development Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
B11F	●	The Biogeochemistry of Human Sanitation: Local to Global Carbon, Nitrogen, and Phosphorus Cycling Associated with the Containment, Treatment, and Reuse of Human Sanitary Waste Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Soils
C11A	○	Advances in Ice Sheet-Ocean Interactions: From Measurements to Climate Impacts I	8:00	10:00		Convention Center	Salon H	GC, OS		
C11B	○	Remote Sensing of Seasonal Snow I	8:00	10:00		Convention Center	Salon G	GC, H		Earth Processes
C11C	●	Glacier Processes from Large-Scale Remote Sensing Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
D11A	○	Advances in Understanding Earth's Dynamic Processes Using Seismic Anisotropy I	8:00	10:00		Marriott Marquis	Archives	MR, S, T		Earth Processes
D11B	●	Accretion and Differentiation and Their Long-Term Consequences for Planetary Evolution I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, P, S, V		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
ED11A	●	Aiming for Truly Diverse Diversity to Strengthen the Geoscience Community I	8:00	10:00		Marriott Marquis	Marquis 7-8	PA, SI		Science & Society
ED11B	○	STEM Education and Outreach: Building Effective Research Collaboration Models I	8:00	10:00		Marriott Marquis	Marquis 1-2	PA, SI	NAGT-GER	Science & Society
ED11C	●	From Either/or to Yes/and: Increasing Indigenous Participation in Science by Simultaneously Cultivating STEM and Cultural Identities I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
ED11D	●	Pathways to Bridge K-12 and Postsecondary I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
EP11A	○	Coastal Geomorphology and Morphodynamics: Observations and Modeling at the Coastal Margin I	8:00	10:00		Convention Center	145B	B, NH, OS		Earth Processes
EP11B	○	Drainage Network Reorganization from Source to Sink I	8:00	10:00		Convention Center	147A			Earth Processes
EP11C	●	Modeling the Critical Zone: Integrating Processes and Data Across Disciplines and Scales I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, H, NS		Earth Processes
EP11D	●	Tree, Water, Regolith, and Rock: The Role of Roots and Plant Hydraulics in Critical Zone Processes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, H		Earth Processes
EP11E	●	Advances in Incorporating Geomorphology and Flooding: Feedbacks and Impacts on Flood Risk Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH		Extreme Events & Hazards
GC11A	○	Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements I	8:00	10:00		Convention Center	Salon A			
GC11B	○	Climate Extremes: Patterns, Mechanisms, and Attribution I	8:00	10:00		Convention Center	Salon B			Extreme Events & Hazards
GC11C	○	Understanding the Effects of Volcanic Eruptions: From Plume Evolution to Climate and Societal Impacts I	8:00	10:00		Convention Center	150A	A, V		Extreme Events & Hazards
GC11D	●	Ambient Air Pollution, Climate Change, and Societal Impacts in South Asia Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GH		Extreme Events & Hazards
GC11E	●	Assessment, Modeling, and Planning: Biochar Production, Characterization, Soil Amendment, Agricultural, and Environmental Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
GC11F	●	Dynamics, Driving Factors, and Consequences of Forests, Industrial Plantations, and Woody Plant Encroachment Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
GC11G	●	Advancing Global Biodiversity Modeling Through Lessons Learned from Other Modeling Communities, Remote Sensing Advancements, and Model Integration and Intercomparison Efforts Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
GC11H	●	Use of Earth Observations in Mitigating Major Environmental Challenges in the Americas Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, H, NH, SI		Science & Society
GC11I	●	Emerging Trends in Environmental Modeling and Its Impact on Agricultural Production Systems and Farming Decisions Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, IN		Data & Emerging Technologies
GC11J	●	Mapping Impact: Techniques and Technologies for Displaying and Communicating Global to Local Solutions to Environmental Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, EP, PA		Climate
GC11K	●	Foundations for (Under)Standing: Interdisciplinary Insights on Global Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SI		Climate
GC11L	●	Mountains as Sentinels of Change: Transdisciplinary Approaches to Adaptation and Sustainable Development Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
GC11M	●	Evolving the Resilience Ecosystem to Meet Public Demand for Climate Services Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, PA, SI		Climate
GH11A	○	Airborne Particulate Matter: Linking Sources and Composition to Specific Health Effects I	8:00	10:00		Marriott Marquis	Independence F-H	A, GC, NH, SI		Science & Society
GH11B	●	Learning from Our Ancestors: Using Modern Earth Science Methods to Understand Ancient Practices Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, GC, H, MR		Science & Society
GH11C	●	Short-Lived Pollutants in the Human-Climate System Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC		Climate
GH11D	●	The Value and Impact of Environmental and Human Health Indicators for Environmental Decision Makers Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Science & Society
GH11E	●	Understanding Links Between Drought and Public Health: Can We Improve Drought Early Warning? Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, NH, PA, SI		Science & Society
GP11A	○	Refining Our Understanding of Earth and Planetary Magnetic Processes with Accurate Paleointensity Estimates I	8:00	10:00		Marriott Marquis	Marquis A-C			Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H11A	○	Advances in Ecohydrology of Water-Stressed Environments I	8:00	10:00		Convention Center	145A	B, GC		Earth Processes
H11B	○	Advances in Understanding Land-Atmosphere Interactions in a Changing Environment I	8:00	10:00		Convention Center	146C	A, GC		
H11C	○	Advancing Catchment Science: Process Understanding and Societal Benefits from Long-Term Observation and Experimentation I	8:00	10:00		Convention Center	156	B		Science & Society
H11D	○	Coastal Hydrology: Fluid Flow, Transport, and Ecosystem Responses from Wave to Climate Scales I	8:00	10:00		Convention Center	101	B, EP, NH, OS		Earth Processes
H11E	○	Fate, Transport, and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone I	8:00	10:00		Convention Center	146B	B		Soils
H11F	○	Food-Energy-Water Nexus in a Changing World I	8:00	10:00		Convention Center	154AB			Science & Society
H11G	○	Hydrochronology: Advances in Tracer Methods and Modeling of Residence Times in Hydrology I	8:00	10:00		Convention Center	146A			
H11H	●	Advances in Integrating Novel Monitoring Data with Distributed Hydrologic Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, GC, NH		Data & Emerging Technologies
H11I	●	Advances in Petrophysics for Hydrogeophysics and Near-Surface Geophysics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NS		
H11J	●	Advances in Quantifying Impacts and Extents of Land Use/Land Cover Change in Hydrology I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, NH		Data & Emerging Technologies
H11K	●	Advancing the Understanding of Changes in Precipitation Intensities at the Subdaily Time Step Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
H11L	●	Analysis Tools for Large Data Sets and Their Application in Hydrology Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A		Data & Emerging Technologies
H11M	●	Better Informed than Uncertain: Applications of Information Theory in the Earth Sciences Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
H11N	●	Complexities of Subsurface Fluid Emplacement for Energy Storage in Porous Formations Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC		
H11O	●	Coupled Groundwater-Surface Water Processes in Continental-Scale Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, GC, NH		Earth Processes
H11P	●	Coupled Terrestrial-Aquatic Approaches Promote Watershed-Scale Sustainability Connecting People and Water Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, SI		Natural Resources
H11Q	●	Developments in Geothermal Energy I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, T		
H11R	●	Discharge Predictions of Rainfall: Storm-Driven Diffusive Hydrography and Runoff Modeling Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, GC		Climate
H11S	●	Evaporation, Gas, and Heat Exchange over Inland Waters Under Climate and Anthropogenic Changes: New Insights from Direct Measurements and Modeling Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B		Climate
H11T	●	Groundwater, Climate, and Adaptation to Hydrological Extremes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, EP, GC, GH		Climate
H11U	●	Hydrology, Society, and Environmental Change: Human-Water Interactions Across Scales III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH		Science & Society
H11V	●	Hydrometeorological Simulation and Forecasting of Atmospheric Rivers and Their Impacts: Processes, Simulations, and Observations Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, SI		Extreme Events & Hazards
H11W	●	Indicators of Plant Water Availability and Stress in Drought-Prone Forests at a Range of Spatial and Temporal Scales Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC		Climate
IN11A	○	Convergence in Space Physics and Earth Science: Discovery Through Machine Learning I	8:00	10:00		Convention Center	209A-C	A, NG, SA, SH		Data & Emerging Technologies
IN11B	●	Application Development in Python for Solar and Space Physics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SA, SH, SM		Data & Emerging Technologies
IN11C	●	Application of Information and Data Science Methods and Technologies to Climate Research and Energy-Water Knowledge Discovery Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN11D	●	Interoperable Tools and Databases in Planetary Sciences and Heliophysics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	P, SA, SH, SM		Data & Emerging Technologies

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
IN11E	●	Predictive Analytics in the Earth and Space Sciences Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Data & Emerging Technologies
NG11A	○	Stochastic Modeling and Nonlinear Waves in Atmosphere, Ocean, Climate Dynamics, and Space Physics I	8:00	10:00	Marriott Marquis	Marquis 12-13	A, IN, OS, P		Earth Processes
NH11A	○	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies	8:00	10:00	Marriott Marquis	Marquis 9-10	A, GP, S, SM	JpGU	Extreme Events & Hazards
NS11A	●	Advances in Exploration Geophysics III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GP, H, S	SEG	Natural Resources
OS11A	○	Turbidity Currents and the Morphology and Stratigraphy They Create I	8:00	10:00	Convention Center	103AB	EP		Earth Processes
OS11B	●	Gas Hydrates: A Major Unconventional Energy Resource—When Will They Be Produced? Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Natural Resources
OS11C	●	Advances in Monitoring and Modeling of Subsea Permafrost Posters	8:00	12:20	Convention Center	Hall A-C (PH)	C		Climate
OS11D	●	Advancing the Use of Multiangle Polarimetry for Ocean Color Remote Sensing Applications Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, B, GC, H		Data & Emerging Technologies
OS11E	●	Flooding on Coral Reef-Lined Coasts: Current State of Knowledge and Future Challenges Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, GC, NH		Earth Processes
OS11F	●	Geologic Evolution of Continental Shelves I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
OS11G	●	Geological Constraints on Coastal Evolution and Morphodynamics Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
PA11B	●	Communicating Science in the Social Media Age I eLightning	8:00	10:00	Convention Center	eLightning Theater II	ED, IN		Science & Society
PA11C	●	Moving Science into Practice: Communicating, Implementing, and Informing Action eLightning	8:00	10:00	Convention Center	eLightning Theater II	ED		Science & Society
PA11A	○	Aligning the Technical Analysis to the Needs of a Decision Maker for Water Resources Planning Under Deeply Uncertain Futures I	8:00	10:00	Marriott Marquis	Marquis 3-4	GC, H, SI		Science & Society
PA11D	●	Climate Services Research and Development: Adapting to Climate Today Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC		Science & Society
PA11E	●	Communicating Climate Change: Informing Politicians and Policy Makers Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC		Climate
PA11F	●	From a Moment to a Movement: Building Infrastructure to Sustain Scientist Engagement Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Science & Society
PA11G	●	Interdisciplinary Perspectives on Drought and Drought Decisions Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, GC, H		Science & Society
PA11H	●	Open-Source Energy Data and Modeling Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, GH		Data & Emerging Technologies
PA11I	●	Planning for Extremes and Long-Term Change in the Built Environment: Scientist–Stakeholder Research and Engagement Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, NH		Climate
PA11J	●	Science in the News: Innovative Research and Programs to Improve the Quality and Quantity of Science Journalism Posters	8:00	12:20	Convention Center	Hall A-C (PH)	ED, GC, SI		Science & Society
PA11K	●	Science to Action: Best Practices and Lessons Learned from Interdisciplinary Research II Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, GH, H, NH		Science & Society
PA11L	●	Working with Unusual Suspects at the Science, Policy, and Community Nexus Posters	8:00	12:20	Convention Center	Hall A-C (PH)	ED		
PP11A	○	Sea Level and Ice Sheet Reconstructions over Glacial Cycles I	8:00	10:00	Convention Center	102AB	C, EP, G, GC		Earth Processes
PP11B	○	Temporal and Geographical Phasing of Northern Hemisphere Climate Change I	8:00	10:00	Convention Center	Salon I			
PP11C	●	Indian Ocean Dynamics Past and Present: Significance for Ocean Circulation and Terrestrial Climate Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, EP, GC, OS		
PP11D	●	Paleoclimate Variability in the Indo-Pacific Region Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Climate
PP11E	●	Limnogeology and Paleolimnology I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
PP11F	●	Toward a Phanerozoic History of Earth's Surface Temperature Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, ED,EP, GC		Climate
S11A	○	Ambient Field Seismology: Theoretical and Methodological Innovations I	8:00	10:00	Marriott Marquis	Independence D			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
S11B	○	Earthquake Source Physics Inferred from Macroscopic Source Parameters and Seismicity Parameters I	8:00	10:00		Marriott Marquis	Independence E			
S11C	●	Quality Control of Seismicity Data: Precision, Completeness, Homogeneity, and Consistency Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH, T		Data & Emerging Technologies
S11D	●	Seismology Contributions: Earthquakes II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
S11E	●	Extracting Information from Geophysical and Geochemical Signals: Applying Machine Learning Through Data Science Challenges Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, NG, T		Data & Emerging Technologies
SA11A	○	Global Dynamical Response of the Upper Atmosphere to External Forcing I	8:00	10:00		Convention Center	202B			
SA11B	●	New and Emerging Magnetosphere-Ionosphere-Thermosphere Coupling Science from Remote and in Situ Spacecraft Measurements: The First 5 Years of Swarm Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SM		Earth Processes
SA11C	●	Recent Advances in the Study of Ionospheric Irregularities Using Ground- and Space-Based Measurements Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
SH11A	○	Physics of the Global Heliosphere and Local Interstellar Medium I	8:00	10:00		Convention Center	207B			
SH11B	○	The Great American Solar Eclipse 2017: New Results and Follow-Up I	8:00	10:00		Convention Center	206	A, P, SA		
SH11C	●	The Great American Solar Eclipse 2017: New Results and Follow-Up Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, P, SA		
SH11D	●	Plasma Energization, Particle Acceleration, and High-Energy Emission in Solar Flares Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
SM11A	○	Moon-Plasma Interactions Throughout the Solar System I	8:00	10:00		Convention Center	207A			
SM11B	○	Quantitative Understanding of Particle Dynamics in Earth's Radiation Belts I	8:00	10:00		Convention Center	204A-C			
SM11C	●	Dayside Magnetosphere Interactions I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SM11D	●	Imaging and Analysis of Dayside Transients and Dynamics I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	P, SH		Data & Emerging Technologies
T11A	○	Deep Structure and Geodynamics of the Continental Convergence Zones I	8:00	10:00		Marriott Marquis	Liberty N-P	DI, G, S, V		Earth Processes
T11B	○	Observations and Models of Multiphase Deformation in Rifts and Rifted Margins I	8:00	10:00		Marriott Marquis	Liberty M			
T11C	○	Subduction Top to Bottom-2 I	8:00	10:00		Marriott Marquis	Liberty L			Earth Processes
T11D	●	Deep Structures of the Eastern Tethyan Orogenic Belt and Related Geodynamics Processes II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
T11E	●	Mechanics of Seismic and Aseismic Events from Small-Scale Lab Experiments to Large Earthquakes III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, S		Earth Processes
T11F	●	The Spatiotemporal Evolution of Structure and Fault Properties During the Seismic Cycle Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, S		Earth Processes
T11G	●	Transdisciplinary Views of Spatial and Temporal Fault-Zone Evolution Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, MR, NH, S		Extreme Events & Hazards
T11H	●	Subduction Zone Processes, Orogenesis, and Seismic Hazard: From the Alpine Mediterranean to the Indo-Burma Region II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, NH, S, V		Earth Processes
V11A	○	Basaltic Magmatism: Constraints from Trace Elements I	8:00	10:00		Marriott Marquis	Liberty I-K	DI		Earth Processes
V11B	○	Crustal Formation, Fluid-Rock Reactions, and Subsurface Microbial Communities in the Samail Ophiolite: Results from the Oman Drilling Project and Related Research II	8:00	10:00		Marriott Marquis	Marquis 6	B, T		Earth Processes
V11C	○	Volcano Seismology and Acoustics: Recent Advances in Understanding Volcanic Processes I	8:00	10:00		Marriott Marquis	Capitol/ Congress	NH, S		
V11D	●	Chemistry and Physics of Redox Reactions in the Solid Earth Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, MR		Earth Processes
V11E	●	Earth's Organic Carbon Cycle: From Oceans to Mantle Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, MR, SI		Science & Society
V11F	●	Sulfur: A Unique Player for Redox Evolution, Volatile Degassing, and Metal Transport in Magmatic, Volcanic, and Hydrothermal Systems Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH	GS, MSA	Extreme Events & Hazards

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
V11G	●	Volatile Budgets and Cycling Through Planetary Evolution Posters	8:00	12:20	Convention Center	Hall A-C (PH)	DI, P, EP		Earth Processes
B11G	○	The Sagan Lecture	9:00	10:00	Marriott Marquis	Marquis 5	P		
U12A	○	Fifty Years of Scientific Ocean Drilling: How the Past Informs the Future	10:20	12:20	Convention Center	202A			Earth Processes
U12B	●	Student Engagement to Enhance Development: Outstanding Student Presentation Award Winners from 2017 Fall Meeting III eLightning	10:20	12:20	Convention Center	eLightning Theater I	ED		Centennial
A12A	○	Advances in Atmospheric Remote Sensing Techniques and Theories II	10:20	12:20	Convention Center	151B			
A12B	○	Air Pollution, Aerosol, and Climate Interactions in Asia II	10:20	12:20	Convention Center	144A-C	GC, GH		Climate
A12C	○	Cloud-Aerosol-Radiation-Climate Interactions in the Southeastern Atlantic I	10:20	12:20	Convention Center	152A			Climate
A12D	○	Data Assimilation, Reanalysis, and Observing System Simulation Experiments: Theory and Applications II	10:20	12:20	Convention Center	152B	C, GC, H, NG	AMS, EMS	Data & Emerging Technologies
A12E	○	Ground-Based Atmospheric Monitoring Networks I	10:20	12:20	Convention Center	150B			
A12F	○	Process-Oriented Analysis of Cloud and Precipitation Physics II	10:20	12:20	Convention Center	151A			Climate
B12A	○	Centennial Challenge: The Bioatmospheric N cycle—N Emissions, Transformations, Deposition, and Terrestrial and Aquatic Ecosystem Impacts I	10:20	12:20	Convention Center	Salon C	A, GC, H, OS		Centennial
B12B	○	Past, Present, and Future of Water-Limited Ecosystems: Local Trends to Global Impacts I	10:20	12:20	Convention Center	149AB	A, GC, H		
B12C	○	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change II	10:20	12:20	Convention Center	143A-C	A, GC		Climate
C12A	○	Advancements in Measurement of Snow Water Equivalent Using Coincident Ground and Airborne Data I	10:20	12:20	Convention Center	Salon G	H		
C12B	○	Advances in Ice Sheet-Ocean Interactions: From Measurements to Climate Impacts II	10:20	12:20	Convention Center	Salon H	GC, OS		
DI12A	○	Advances in Understanding Earth's Dynamic Processes Using Seismic Anisotropy II	10:20	12:20	Marriott Marquis	Archives	MR, S, T		Earth Processes
ED12A	○	Aiming for Truly Diverse Diversity to Strengthen the Geoscience Community II	10:20	12:20	Marriott Marquis	Marquis 7-8	PA, SI		Science & Society
EP12A	○	Coastal Geomorphology and Morphodynamics: Observations and Modeling at the Coastal Margin II	10:20	12:20	Convention Center	145B	B, NH, OS		Earth Processes
EP12B	○	Sediment Dynamics Across Landscapes I	10:20	12:20	Convention Center	147A			Earth Processes
GC12A	○	Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements II	10:20	12:20	Convention Center	Salon A			
GC12B	○	Climate Extremes: Patterns, Mechanisms, and Attribution II	10:20	12:20	Convention Center	Salon B			Extreme Events & Hazards
GC12C	○	Global Vegetation and Land Surface Dynamics in a Changing Climate I	10:20	12:20	Convention Center	147B	EP, SI		Natural Resources
GC12D	○	Quantifying and Decreasing Uncertainty in Projections of Future Sea Level Change I	10:20	12:20	Convention Center	150A	C, OS		Climate
GH12A	○	Natural, Anthropogenic, and Biogenic Air Emissions and Human Health I	10:20	12:20	Marriott Marquis	Independence F-H	A, GC, NH, SI	EGU, JpGU	Science & Society
GP12A	○	Planetary Magnetism and Core Processes I	10:20	12:20	Marriott Marquis	Marquis A-C	DI, MR, P		Planetary Discovery
H12H	●	Disturbance Hydrology: Exploring Both Immediate and Long-Term Impacts of Abrupt Changes on Hydrological Processes and Earth Systems eLightning	10:20	12:20	Convention Center	eLightning Theater II	B, EP, NH, T		Earth Processes
H12A	○	Advances in Ecohydrology of Water-Stressed Environments II	10:20	12:20	Convention Center	145A	B, GC		Earth Processes
H12B	○	Advances in Understanding Land-Atmosphere Interactions in a Changing Environment II	10:20	12:20	Convention Center	146C	A, GC		
H12C	○	Advances, Breakthroughs, and Challenges in Hydrogeologic Sciences I	10:20	12:20	Convention Center	146A			Earth Processes
H12D	○	Advancing Catchment Science: Process Understanding and Societal Benefits from Long-Term Observation and Experimentation II	10:20	12:20	Convention Center	156	B		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H12E	●	Aquatic Ecosystem Responses to Human Disturbances and Management: A Comparative Discussion of Inland and Coastal Ecosystems and Their Contributing Watersheds I	10:20	12:20		Convention Center	101	B, GC, OS		Natural Resources
H12F	●	Fate, Transport, and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone II	10:20	12:20		Convention Center	146B	B		Soils
H12G	●	Food-Energy-Water Nexus in a Changing World II	10:20	12:20		Convention Center	154AB			Science & Society
IN12A	●	Augmenting Advances in the Next Century: Why AI and Knowledge-Centered Research in Geosciences Is Important Now and How It Will Change the Next Century I	10:20	12:20		Convention Center	209A-C			Data & Emerging Technologies
NH12A	●	Engaging Science to Enhance Preparedness for Regional and National-Level Response to Volcanic Eruptions	10:20	12:20		Marriott Marquis	Marquis 9-10	PA, SI, V		Extreme Events & Hazards
NS12A	●	Agricultural Geophysics I	10:20	12:20		Marriott Marquis	Marquis 12-13	H		Soils
OS12A	●	Turbidity Currents and the Morphology and Stratigraphy They Create II	10:20	12:20		Convention Center	103AB	EP		Earth Processes
P12A	●	Science for a New Era of Lunar Exploration I	10:20	12:20		Convention Center	207A	C, EP, SI, V		Planetary Discovery
P12B	●	Venus: The Origin and Fate of Earth-Like Planets? Big Questions of the World Next Door I	10:20	12:20		Convention Center	206			Planetary Discovery
PA12A	●	Addressing Societal Challenges Through Science Diplomacy I	10:20	12:20		Marriott Marquis	Marquis 3-4			Science & Society
PA12B	●	Integrating Socioeconomics and Governance into Studies of Food and Water Systems I	10:20	12:20		Marriott Marquis	Marquis 1-2	GC, H, SI		
PP12A	●	Sea Level and Ice Sheet Reconstructions over Glacial Cycles II	10:20	12:20		Convention Center	102AB	C, EP, G, GC		Earth Processes
PP12B	●	Water Isotope Systematics: Improving Modern and Paleoclimate Interpretations I	10:20	12:20		Convention Center	Salon I	A, B, C, H		Climate
S12A	●	Ambient Field Seismology: Theoretical and Methodological Innovations II	10:20	12:20		Marriott Marquis	Independence D			
S12B	●	Earthquake Source Physics Inferred from Macroscopic Source Parameters and Seismicity Parameters III	10:20	12:20		Marriott Marquis	Independence E			
SA12A	●	Multiscale Ionosphere Structuring Processes and Related Impact on Technology I	10:20	12:20		Convention Center	202B	SM		
SH12A	●	Evolution and Instability of Coronal Magnetic Structures Leading to the Onset of Solar Eruptions I	10:20	12:20		Convention Center	201			
SH12B	●	Physics of the Global Heliosphere and Local Interstellar Medium II	10:20	12:20		Convention Center	207B			
SM12A	●	Progress of Inner Magnetosphere Research by Coordinated Observations from Satellites and Ground I	10:20	12:20		Convention Center	204A-C			
T12A	●	Deep Structure and Geodynamics of the Continental Convergence Zones II	10:20	12:20		Marriott Marquis	Liberty N-P	S, V		Earth Processes
T12B	●	Observations and Models of Multiphase Deformation in Rifts and Rifted Margins II	10:20	12:20		Marriott Marquis	Liberty M			
T12C	●	Subduction Top to Bottom-2 II	10:20	12:20		Marriott Marquis	Liberty L			Earth Processes
TT12A	TT	High-Energy Radiation from Thunderstorms	10:20	10:50		Marriott Marquis	University of DC/Catholic University	A, AE, SM		
V12A	●	Basaltic Magmatism: Constraints from Trace Elements II	10:20	12:20		Marriott Marquis	Liberty I-K	DI		Earth Processes
V12B	●	Crustal Formation, Fluid-Rock Reactions, and Subsurface Microbial Communities in the Samail Ophiolite: Results from the Oman Drilling Project and Related Research	10:20	12:20		Marriott Marquis	Marquis 6	B, T		Earth Processes
V12C	●	Volcano Seismology and Acoustics: Recent Advances in Understanding Volcanic Processes II	10:20	12:20		Marriott Marquis	Capitol/Congress	NH, S		
TT12B	TT	Metallic Hydrogen: From the Laboratory to the Interior of Giant Planets	10:50	11:20		Marriott Marquis	University of DC/Catholic University	MR, P		
TT12C	TT	A Review of the Impact of Transient Luminous Events on the Chemical Composition of the Atmosphere: Past, Present, and Future	11:20	11:50		Marriott Marquis	University of DC/Catholic University	A, AE		
TT12D	TT	Distributed Fiber-Optic Seismology in Theory and Practice	11:50	12:20		Marriott Marquis	University of DC/Catholic University	C, EP, NS, S		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
U13C	🗣️	Presidential Forum Lecturer: Lisa Jackson	12:30	1:30		Convention Center	Ballroom A-C			
U13A	○	Cities and Geophysics: Lessons from the Past and Challenges for the Future	1:40	3:40		Convention Center	202A		EGU, JpGU	Centennial
U13B	●	Student Engagement to Enhance Development: Outstanding Student Presentation Award Winners from 2017 Fall Meeting II eLightning	1:40	3:40		Convention Center	eLightning Theater I	ED		Centennial
A13A	○	Advances in Optical Remote Sensing of the Atmosphere and Surface I	1:40	3:40		Convention Center	151B	OS		Data & Emerging Technologies
A13B	○	Air Pollution, Aerosol, and Climate Interactions in Asia III	1:40	3:40		Convention Center	144A-C	GC, GH		Climate
A13C	○	Data Assimilation, Reanalysis, and Observing System Simulation Experiments: Theory and Applications III	1:40	3:40		Convention Center	152B	C, GC, H, NG	AMS, EGU	Data & Emerging Technologies
A13D	○	Marine Aerosols, Trace Gases, and Clouds over the North Atlantic II	1:40	3:40		Convention Center	152A	B, OS		Climate
A13E	○	Progresses in Understanding Atmospheric Convection I	1:40	3:40		Convention Center	151A			Climate
A13F	●	A Spectral View of Aerosols, Clouds, and Earth Energy Budget: From Model Evaluation to Process Studies and Planning Climate Change Observations I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A13G	●	Aerosol, Cloud, Precipitation, and Radiation Studies over the Southern Ocean II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
A13H	●	Cloud-Aerosol-Radiation-Climate Interactions in the Southeastern Atlantic II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A13I	●	Ground-Based Atmospheric Monitoring Networks II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
A13J	●	Interactions of Aerosols, Clouds, Radiation, and Climate on Regional Scales I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A13K	●	PANEL DISCUSSIONS: (A) Clouds in Tropics: Stochasticity and Organization, Observation, and Simulation; and (B) Frontier Sciences and Technologies at Ground-Based Neutral Atmosphere Observatories Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SA		Climate
A13L	●	Process-Oriented Analysis of Cloud and Precipitation Physics III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A13M	●	Progress in Reanalysis: Development, Evaluation, and Application II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, NG, OS		Climate
A13N	●	The Surface Energy Budget: Influences on Spatiotemporal Magnitude and Variability I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A13O	●	Toward Reducing Systematic Errors in Weather and Climate Models: Evaluation, Understanding, and Improvement I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		
AE13A	○	Thunderstorm Electrification and Lightning III	1:40	3:40		Convention Center	201			Extreme Events & Hazards
AE13B	●	Thunderstorm Electrification and Lightning IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
B13A	○	Centennial Challenge: The Bioatmospheric N cycle—N Emissions, Transformations, Deposition, and Terrestrial and Aquatic Ecosystem Impacts II	1:40	3:40		Convention Center	Salon C	A, GC, H, OS		Centennial
B13B	○	Monitoring Land Cover and Land Use Change Using Long-Term Time Series Remote Sensing Information I	1:40	3:40		Convention Center	147B			Natural Resources
B13C	○	Past, Present, and Future of Water-Limited Ecosystems: Local Trends to Global Impacts II	1:40	3:40		Convention Center	149AB	A, GC, H		
B13D	○	Plant Traits, Biogeochemical Cycles, and Optimality-Driven Model Development I	1:40	3:40		Convention Center	150B			
B13E	○	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change III	1:40	3:40		Convention Center	143A-C	GC		Climate
B13F	●	Biogeochemical and Functional Consequences of Vegetation Changes in the Anthropocene I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		
B13G	●	Forest CO ₂ , CH ₄ , and N ₂ O Emissions: Magnitudes, Patterns, and Pathways Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
B13H	●	Modeling the Why, Where, and When of Regional Forest Decline Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, H, NH		Extreme Events & Hazards
B13I	●	Vegetation Canopies: Physiology, Structure, Function I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
C13A	○	Glacier Front Dynamics and the Fate of Icebergs I	1:40	3:40		Convention Center	Salon H	GC, OS		Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
C13B	●	Altimetry of the Cryosphere and Polar Oceans Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, OS		Climate
C13C	●	GRACE-FO and ICESat-2: NASA's Newest Missions for Cryospheric Science Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G		Earth Processes
C13D	●	Advancements in Measurement of Snow Water Equivalent Using Coincident Ground and Airborne Data Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		
C13E	●	Remote Sensing of Seasonal Snow Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H		Earth Processes
C13F	●	Dust, Black Carbon, and Other Aerosols in the Cryosphere Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC, H		Soils
C13G	●	Recent Advances in Monitoring, Measuring, and Modeling Snow Processes Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
C13H	●	Modeling of the Cryosphere: Seasonal Snow Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		
C13I	●	Quantifying Spatial and Temporal Variability of Snow and Snow Processes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC, H		
C13J	●	Reproducible Science in Water Resources: Cryosphere and Hydrology Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, IN		Data & Emerging Technologies
D13A	○	Accretion and Differentiation and Their Long-Term Consequences for Planetary Evolution II	1:40	3:40		Marriott Marquis	Archives	MR, P, S, V		
D13B	●	Advances in Understanding Earth's Dynamic Processes Using Seismic Anisotropy III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	MR, S, T		Earth Processes
ED13A	○	From Either/or to Yes/and: Increasing Indigenous Participation in Science by Simultaneously Cultivating STEM and Cultural Identities II	1:40	3:40		Marriott Marquis	Marquis 7-8			Science & Society
ED13B	○	Initiating Climate Change Conversations: A Starter Pack for Research Scientists	1:40	3:40		Marriott Marquis	Marquis 1-2			Climate
ED13C	●	Aiming for Truly Diverse Diversity to Strengthen the Geoscience Community III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA, SI		Science & Society
ED13D	●	Geoethics: Taking a Stand for Ethical Geoscience Research, Education, Communication, and Practice Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
ED13E	●	Undergraduate Earth, Atmospheric, Ocean, and Space Science Research and Outreach Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
EP13A	○	Coastal Geomorphology and Morphodynamics: Observations and Modeling at the Coastal Margin III	1:40	3:40		Convention Center	145B	B, NH, OS		Earth Processes
EP13B	○	Planets as Experiments: Surface Processes in Extraterrestrial Environments I	1:40	3:40		Convention Center	147A	P		Planetary Discovery
EP13C	●	From the Eastern Tibetan Plateau to the Andaman Sea: The Ayeyarwady and Thanlwin River Source to Sink System Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
EP13D	●	From the Mountains to the Sea: Significance of Grain-Size Distributions in Stratigraphy, Sedimentology, and Paleoclimatology—Analyses, Application, and Interpretation Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, PP	SEPM	Earth Processes
G13A	○	The Role of Geodesy and Remote Sensing in Preparedness, Hazard Monitoring, and Disaster Response I	1:40	3:40		Marriott Marquis	Marquis A-C	NH, T, V		Extreme Events & Hazards
G13B	●	Geodetic Measurements of the Earth's Elastic Response to Surface Mass Variability I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
G13C	●	GRACE, GRACE Follow-On, and Beyond I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, H, OS		Climate
G13D	●	Satellite Geodesy for Climate and Atmospheric Research I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, H, OS		Climate
GC13A	○	Advances in Understanding Impacts of Land Use and Land Cover Change Using Earth System Models and Data Records I	1:40	3:40		Convention Center	150A	A, B, H, SI		Science & Society
GC13B	○	Carbon Cycle Climate Variability: Observation, Modeling, and Data Assimilation in the Modern Data-Rich Era I	1:40	3:40		Convention Center	Salon A	A, B, OS		Climate
GC13C	○	Climate Extremes: Patterns, Mechanisms, and Attribution III	1:40	3:40		Convention Center	Salon B			Extreme Events & Hazards
GC13D	●	Quantifying and Decreasing Uncertainty in Projections of Future Sea Level Change Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, OS		Climate
GC13E	●	Understanding the Effects of Volcanic Eruptions: From Plume Evolution to Climate and Societal Impacts Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, NH, V		Extreme Events & Hazards

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GC13F	●	Advancing Global Surface Biology and Geology Science with Visible to Short-Wavelength Infrared Imaging Spectroscopy and Thermal Infrared Measurements Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
GC13G	●	Global Vegetation and Land Surface Dynamics in a Changing Climate Posters	1:40	6:00	Convention Center	Hall A-C (PH)	EP, SI		Natural Resources
GH13A	○	Developing Climate, Public Health, and Citizen Science Services to Predict and Prevent Climate-Sensitive Health Risks and Serve the Public Good	1:40	3:40	Marriott Marquis	Independence F-H	GC, PA, SI		Science & Society
GH13B	●	Airborne Particulate Matter: Linking Sources and Composition to Specific Health Effects II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, GC, NH, SI		Science & Society
GH13C	●	Characterization of Atmospheric Nanoparticles and Their Impact on Health I Posters	1:40	6:00	Convention Center	Hall A-C (PH)	IN		Climate
GH13D	●	Natural, Anthropogenic, and Biogenic Air Emissions and Human Health Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, GC, NH, SI	EGU, JpGU	Science & Society
GP13A	●	General Contributions in Geomagnetism, Paleomagnetism, and Electromagnetism I eLightning	1:40	3:40	Convention Center	eLightning Theater II			
H13A	○	Advances in Large-Scale Modeling and Remote Sensing of Climate-Hydrology-Human Interactions Toward Sustainable Land-Water Resource Management I	1:40	3:40	Convention Center	146C	A, GC		Climate
H13B	○	Big Data and Machine Learning in Hydrology and Subsurface Flow and Transport I	1:40	3:40	Convention Center	146A	IN		Data & Emerging Technologies
H13C	○	Ecohydrologic General Contributions I	1:40	3:40	Convention Center	145A	B, EP, GC		
H13D	○	Fate, Transport, and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone III	1:40	3:40	Convention Center	146B	B		Soils
H13E	○	Modeling of Reactive Transport Processes Across Scales I	1:40	3:40	Convention Center	156			
H13F	○	Water and Society: Water Resources Management and Policy in a Changing World I	1:40	3:40	Convention Center	154AB	GC, PA, SI		Science & Society
H13G	●	Advances in Ecohydrology of Water-Stressed Environments III Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B, GC		Earth Processes
H13H	●	Advances in Understanding Land-Atmosphere Interactions in a Changing Environment III Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, GC		
H13I	●	Advances, Breakthroughs, and Challenges in Hydrogeologic Sciences II Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Earth Processes
H13J	●	Advancing Catchment Science: Process Understanding and Societal Benefits from Long-Term Observation and Experimentation III Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B		Science & Society
H13K	●	Aquatic Ecosystem Responses to Human Disturbances and Management: A Comparative Discussion of Inland and Coastal Ecosystems and Their Contributing Watersheds II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B, GC, OS		Natural Resources
H13L	●	Coastal Hydrology: Fluid Flow, Transport, and Ecosystem Responses from Wave to Climate Scales II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B, EP, NH, OS		Earth Processes
H13M	●	Food-Energy-Water Nexus in a Changing World III Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Science & Society
H13N	●	Hydrochronology: Advances in Tracer Methods and Modeling of Residence Times in Hydrology II Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
H13O	●	Stochastic Modeling of the Hydrosphere and Biosphere Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B, NG		Climate
H13P	●	The MacGyver Session: The Place for Novel, Exciting, Self-Made, Hacked, or Improved Sensors, Data Acquisition, and Data Transmission Solutions to Understand the Geosphere Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, C, NS		Data & Emerging Technologies
H13Q	●	Toward the Understanding of Multiphase Systems: Fluid Dynamics, Solute Transport, and Biogeochemical Reactions from Pore to Continuum Scale Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Soils
H13R	●	Water and Society: Trade-Offs Analysis Beyond Hydroeconomic Models I Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
H13S	●	Water for Food: Enhancing Food Security in the Developing World Through Improved Agricultural Water Management I Posters	1:40	6:00	Convention Center	Hall A-C (PH)	SI		Science & Society
H13T	●	Water Pollution in Rivers I Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
H13U	●	Weather/Climate Ensembles and Downscaling Methodologies for Hydrologic Prediction Systems: Methods, Process Understanding, Applications, and Verification I Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, GC, NH, NS		Extreme Events & Hazards

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
IN13A	○	Artificial Intelligence Applications in the Geosciences: Promises and Challenges for the Future I	1:40	3:40		Convention Center	209A-C	GC, H, NH, SI		Data & Emerging Technologies
IN13B	○	New and Emerging Technologies for Earth and Space Science I	1:40	3:40		Convention Center	101			Data & Emerging Technologies
IN13C	●	Convergence in Space Physics and Earth Science: Discovery Through Machine Learning Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, NG, SA, SH		Data & Emerging Technologies
MR13A	○	Advanced Experimental and Analytical Approaches in Minerals Studies I	1:40	3:40		Marriott Marquis	Capitol/Congress	DI		
MR13B	●	Multispectral and Hyperspectral Imaging for Quantitative Core Evaluation I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
MR13C	●	On the Use of 3-D Printing Technology for Investigation of Subsurface Processes in Natural Porous Media I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Natural Resources
NH13A	○	Landslide Remote Sensing, InSAR-Based Monitoring, Modeling, and Early Warning	1:40	3:40		Marriott Marquis	Marquis 9-10	IN, H		Extreme Events & Hazards
NH13B	●	Engaging Science to Enhance Preparedness for Regional and National-Level Response to Volcanic Eruptions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA, SI, V		Extreme Events & Hazards
NH13C	●	Integrated Approach for Earth, Ocean, Atmosphere, and Ionosphere Monitoring and Early Warning of Natural Hazards Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
NH13D	●	Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GP, S	EGU, JpGU	Extreme Events & Hazards
NS13A	○	Advances in Exploration Geophysics I	1:40	3:40		Marriott Marquis	Marquis 12-13	GP, H, S	SEG	Natural Resources
NS13B	●	Agricultural Geophysics Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Soils
NS13C	●	Geophysical Quantification of Biogeochemical Processes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, H		Soils
OS13A	○	Gas Hydrate-Bearing Sediments: Recent Advances in Characterization, Experiments, and Modeling I	1:40	3:40		Convention Center	102AB	B		
OS13B	○	Nearshore Physical Processes I	1:40	3:40		Convention Center	103AB			Earth Processes
OS13C	●	Turbidity Currents and the Morphology and Stratigraphy They Create Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP		Earth Processes
OS13D	●	General Topics in Oceanography Presented in Poster Form Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
OS13E	●	Interdisciplinary Applications of Data from NOAA's Operational Network of Deep-Ocean Assessment and Reporting of Tsunamis (DART) Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH		Earth Processes
OS13F	●	High-Resolution Ocean Modeling for Ocean-Ice Interaction Around the Greenland and Antarctic Ice Sheets Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
P13A	○	Carbon Across the Solar System I	1:40	3:40		Convention Center	206			
P13B	○	Fifty Years of Apollo Science: A Legacy of Lunar Science from Orbit, the Surface, and Long-Lived Surface Experiments I	1:40	3:40		Convention Center	207A	EP, G, S, V		Planetary Discovery
PA13A	○	Climate Services Research and Development: Adapting to Climate Today I	1:40	3:40		Marriott Marquis	Marquis 3-4	GC		Science & Society
PA13B	●	Addressing Societal Challenges Through Science Diplomacy Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PA13C	●	Aligning the Technical Analysis to the Needs of a Decision Maker for Water Resources Planning Under Deeply Uncertain Futures Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, SI		Science & Society
PA13D	●	Behind the Scenes on the Front Lines of Science Communication: How Institutions Can Support and Reward Scientists Who Do Public Engagement Work	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PA13E	●	Bridging the Gaps Between Science and Science Policy Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PA13F	●	Communicating Freshwater Health Through a Social-Ecological Lens: Models, Indicators, Apps, and Engagement Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, SI		Science & Society
PA13G	●	Integrating Socioeconomics and Governance into Studies of Food and Water Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, SI		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PP13A	○	Mechanisms and Drivers of Atlantic Meridional Overturning Circulation (AMOC) Structure and Variability in Past Climate Change and Their Impact on Climate and Biogeochemistry I	1:40	3:40		Convention Center	Salon G	B, GC, OS		Climate
PP13B	○	Water Isotope Systematics: Improving Modern and Paleoclimate Interpretations II	1:40	3:40		Convention Center	Salon I	A, B, C, H		Climate
PP13C	●	Sea Level and Ice Sheet Reconstructions over Glacial Cycles Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, EP, G, GC		Earth Processes
PP13D	●	Temporal and Geographical Phasing of Northern Hemisphere Climate Change Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
PP13E	●	The North Atlantic Region in the Early Icehouse World Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, EP, GC, OS		Climate
PP13F	●	Paleoceanography and Paleoclimatology: General Contributions I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S13A	○	Earthquake Source Physics Inferred from Macroscopic Source Parameters and Seismicity Parameters II	1:40	3:40		Marriott Marquis	Independence E			
S13B	○	Extracting Information from Geophysical and Geochemical Signals: Applying Machine Learning Through Data Science Challenges I	1:40	3:40		Marriott Marquis	Independence D	MR, NG, T		Data & Emerging Technologies
S13C	●	Ambient Field Seismology: Theoretical and Methodological Innovations Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S13D	●	Seismology Contributions: General II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SA13A	○	New Scientific Measurements in near-Earth Space I	1:40	3:40		Convention Center	202B	SM		Data & Emerging Technologies
SA13B	●	Global Dynamical Response of the Upper Atmosphere to External Forcing Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SA13C	●	Multiscale Ionosphere Structuring Processes and Related Impact on Technology Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SM		
SH13A	○	Evolution and Instability of Coronal Magnetic Structures Leading to the Onset of Solar Eruptions II	1:40	3:40		Convention Center	207B			
SH13B	●	Evolution and Instability of Coronal Magnetic Structures Leading to the Onset of Solar Eruptions Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH13C	●	Physics of the Global Heliosphere and Local Interstellar Medium Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SM13A	○	Quantitative Understanding of Particle Dynamics in Earth's Radiation Belts II	1:40	3:40		Convention Center	204A-C			
SM13B	●	Multiscale Investigations of Fundamental Plasma Processes by in Situ Observations and Simulations I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P, SH		
T13A	○	East Asia Tectonic and Geodynamic History Since the Mesozoic I	1:40	3:40		Marriott Marquis	Liberty N-P	DI, S, V		
T13B	○	Mechanics of Seismic and Aseismic Events from Small-Scale Lab Experiments to Large Earthquakes I	1:40	3:40		Marriott Marquis	Liberty M	MR, S		Earth Processes
T13C	○	Subduction Top to Bottom-2 III	1:40	3:40		Marriott Marquis	Liberty L			Earth Processes
T13D	●	Whose Fault Is It? Relating Structural and Compositional Heterogeneity to Slip Behavior II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T13E	●	Geology and Geophysics of the National Capital Region Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, NS, S		Extreme Events & Hazards
T13F	●	Observations and Models of Multiphase Deformation in Rifts and Rifted Margins III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T13G	●	Integrating Stress Geomechanics: Observations, Models, and Implications Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, S		
T13H	●	Synthesis: Knowns and Unknowns of the Cascadia Subduction Zone II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH, S, V		Extreme Events & Hazards
T13I	●	Three-Dimensional Fault Architecture and Geometrical Segmentation from Fault Observations to Seismic Hazard Assessment II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, S		
V13A	○	Oceanic Intraplate Volcanism I	1:40	3:40		Marriott Marquis	Liberty I-K	MR, NH, OS		
V13B	●	Basaltic Magmatism: Constraints from Trace Elements Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI		Earth Processes
V13C	●	Generation and Storage of Silicic Magmas in Hydrothermally Preconditioned Crust Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
V13D	●	Volcano Seismology and Acoustics: Recent Advances in Understanding Volcanic Processes III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH, S		
V13E	●	Crustal Formation, Fluid-Rock Reactions, and Subsurface Microbial Communities in the Samail Ophiolite: Results from the Oman Drilling Project and Related Research I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, T		Earth Processes
U14A	○	Can We Manage Earth's Future?	4:00	6:00		Convention Center	202A	B, GC, PA, SI		Science & Society
U14B	●	Student Engagement to Enhance Development: Outstanding Student Presentation Award Winners from 2017 Fall Meeting I eLightning	4:00	6:00		Convention Center	eLightning Theater I	ED		Centennial
A14A	○	Advances in Optical Remote Sensing of the Atmosphere and Surface II	4:00	6:00		Convention Center	151B	OS		Data & Emerging Technologies
A14B	○	Aerosol Exchange Across the Air-Sea Interface: Deposition and Emission II	4:00	6:00		Convention Center	150B	B, OS		Climate
A14C	○	Aerosol Influence on Ice-Containing Clouds Through Various Modes of Ice Nucleation II	4:00	6:00		Convention Center	152A			
A14D	○	Air Pollution, Aerosol, and Climate Interactions in Asia IV	4:00	6:00		Convention Center	144A-C	GC, GH		Climate
A14E	○	Convective Clouds: Processes, Dynamics, and Links to Weather and Climate II	4:00	6:00		Convention Center	151A			Climate
A14F	○	Monsoons: Observations, Subseasonal, Seasonal, and Interannual to Decadal Variability, Forecast, Climate Change, and Extremes II	4:00	6:00		Convention Center	101			Climate
A14G	○	Progress in Reanalysis: Development, Evaluation, and Application I	4:00	6:00		Convention Center	152B	GC, H, NG, OS		Climate
B14A	○	Centennial Challenge: The Bioatmospheric N Cycle—N Emissions, Transformations, Deposition, and Terrestrial and Aquatic Ecosystem Impacts III	4:00	6:00		Convention Center	Salon C	A, GC, H, OS		Centennial
B14B	○	Monitoring Land Cover and Land Use Change Using Long-Term Time Series Remote Sensing Information II	4:00	6:00		Convention Center	147B			Natural Resources
B14C	○	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change IV	4:00	6:00		Convention Center	143A-C	GC		Climate
B14D	○	Vegetation Canopies: Physiology, Structure, Function II	4:00	6:00		Convention Center	149AB			Earth Processes
C14A	○	Glacier Processes from Large-Scale Remote Sensing I	4:00	6:00		Convention Center	Salon H			
DI14A	○	Connecting the Dynamics of the Core and Mantle to Observations and Experiments I	4:00	6:00		Marriott Marquis	Archives	MR, NG		Earth Processes
ED14A	○	Partnerships Between K-12 Teachers/Informal Educators and Scientists: Lessons Learned I	4:00	6:00		Marriott Marquis	Marquis 7-8			Science & Society
EP14A	○	Modeling the Critical Zone: Integrating Processes and Data Across Disciplines and Scales II	4:00	6:00		Convention Center	147A	B, GC, H, NS		Earth Processes
EP14B	○	The Interplay of Cohesive Sediment Dynamics and Hydrodynamics in the Coastal Riverine Zone to the Outer Reaches of the Continental Shelf I	4:00	6:00		Convention Center	145B			
G14A	○	Better Living Through Volcano Geodesy: Constraints on Volcanic Hazards from Geodetic Observations and Multidisciplinary Models I	4:00	6:00		Marriott Marquis	Marquis A-C	NH, S, T, V	EGU	Extreme Events & Hazards
GC14A	○	Advances in Monitoring and Reporting Greenhouse Gas (GHG) Emissions and Sinks Across Land Use Categories I	4:00	6:00		Convention Center	Salon A			Data & Emerging Technologies
GC14B	○	Advances in Understanding Impacts of Land Use and Land Cover Change Using Earth System Models and Data Records II	4:00	6:00		Convention Center	150A	A, B, H, SI		Science & Society
GC14C	○	From Hazard to Risk: Indicators of Climate and Weather Extremes for Impacts I	4:00	6:00		Convention Center	Salon B	GH, NH, SI		Extreme Events & Hazards
GH14A	○	Climate Influences on Infectious Disease Dynamics and the Potential for Transnational Outbreaks I	4:00	6:00		Marriott Marquis	Independence F-H	B, GC, H, NH		
H14A	○	Advances in Large-Scale Modeling and Remote Sensing of Climate-Hydrology-Human Interactions Toward Sustainable Land-Water Resource Management II	4:00	6:00		Convention Center	146C	A, GC		Climate
H14B	○	Assessing Environmental Impacts, Characterization, Treatment, Injection, and Uses of Hydraulic Fracturing and Oil and Gas Waste Waters I	4:00	6:00		Convention Center	156			Natural Resources
H14C	○	Big Data and Machine Learning in Hydrology and Subsurface Flow and Transport II	4:00	6:00		Convention Center	146A	IN		Natural Resources

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H14D	○	Characterizing Spatial and Temporal Variability of Hydrological and Biogeochemical Processes Across Scales I	4:00	6:00		Convention Center	146B	B		Soils
H14E	○	New Insights in Stream and Watershed Restoration: Linking Restoration Design, Habitat Conditions, and Ecological Outcomes I	4:00	6:00		Convention Center	145A	B, EP		Natural Resources
H14F	○	Water and Society: Water Resources Management and Policy in a Changing World II	4:00	6:00		Convention Center	154AB	GC, PA, SI		Science & Society
IN14A	○	Deep Learning for Geoscience I	4:00	6:00		Convention Center	209A-C			Data & Emerging Technologies
MR14A	○	Advanced Experimental and Analytical Approaches in Minerals Studies II	4:00	6:00		Marriott Marquis	Capitol/Congress	DI		
NH14A	○	Advances in Landslide Science to Assess Landslide Hazards and Risk	4:00	6:00		Marriott Marquis	Marquis 9-10			Extreme Events & Hazards
NS14A	○	Advances in Exploration Geophysics II	4:00	6:00		Marriott Marquis	Marquis 12-13	GP, H, S	SEG	Natural Resources
OS14A	○	Gas Hydrate-Bearing Sediments: Recent Advances in Characterization, Experiments, and Modeling II	4:00	6:00		Convention Center	102AB	B		
OS14B	○	Nearshore Physical Processes II	4:00	6:00		Convention Center	103AB			Earth Processes
P14A	○	Shoemaker Lecture I	4:00	5:00		Marriott Marquis	Marquis 5			Planetary Discovery
PA14A	○	Communicating Climate Change: Informing Politicians and Policy Makers I	4:00	6:00		Marriott Marquis	Marquis 3-4	GC		Climate
PA14B	○	Interdisciplinary Perspectives on Drought and Drought Decisions I	4:00	6:00		Marriott Marquis	Marquis 1-2	B, GC, H		Science & Society
PP14A	○	Mechanisms and Drivers of Atlantic Meridional Overturning Circulation (AMOC) Structure and Variability in Past Climate Change and Their Impact on Climate and Biogeochemistry II	4:00	6:00		Convention Center	Salon G	B, GC, OS		Climate
PP14B	○	Water Isotope Systematics: Improving Modern and Paleoclimate Interpretations III	4:00	6:00		Convention Center	Salon I	A, B, C, H		Climate
S14A	○	Extracting Information from Geophysical and Geochemical Signals: Applying Machine Learning Through Data Science Challenges II	4:00	6:00		Marriott Marquis	Independence D	MR, NG, T		Data & Emerging Technologies
S14B	○	Seismology Contributions: Earthquakes I	4:00	6:00		Marriott Marquis	Independence E			
SA14A	○	New and Emerging Magnetosphere-Ionosphere-Thermosphere Coupling Science from Remote and in Situ Spacecraft Measurements: The First 5 Years of Swarm I	4:00	6:00		Convention Center	207A	SM		Earth Processes
SA14B	○	Recent Advances in the Study of Ionospheric Irregularities Using Ground-and Space-Based Measurements I	4:00	6:00		Convention Center	202B			Data & Emerging Technologies
SH14A	○	Plasma Energization, Particle Acceleration, and High-Energy Emission in Solar Flares I	4:00	6:00		Convention Center	201			Extreme Events & Hazards
SH14B	○	Solar and Heliospheric Physics: General Contributions I	4:00	6:00		Convention Center	207B	SA, SM		
SM14A	○	Dayside Magnetosphere Interactions II	4:00	6:00		Convention Center	206			
SM14B	○	Progress of Inner Magnetosphere Research by Coordinated Observations from Satellites and Ground II	4:00	6:00		Convention Center	204A-C			
T14A	○	East Asia Tectonic and Geodynamic History Since the Mesozoic II	4:00	6:00		Marriott Marquis	Liberty N-P	DI, S, V		
T14B	○	Mechanics of Seismic and Aseismic Events from Small-Scale Lab Experiments to Large Earthquakes II	4:00	6:00		Marriott Marquis	Liberty M	MR, S		Earth Processes
T14C	○	Subduction Zone Processes, Orogenesis, and Seismic Hazard: From the Alpine Mediterranean to the Indo-Burma Region I	4:00	6:00		Marriott Marquis	Liberty L	G, NH, S, V		Earth Processes
V14B	●	Lithium Resources in Continental Brines, Pegmatites, and Lacustrine Sediments I eLightning	4:00	6:00		Convention Center	eLightning Theater II	EP		Natural Resources
V14A	○	Oceanic Intraplate Volcanism II	4:00	6:00		Marriott Marquis	Liberty I-K	MR, NH, OS		
P14B	○	Whipple Lecture I	5:00	6:00		Marriott Marquis	Marquis 5			Planetary Discovery
U14C	🗝	Data Keynote with Kara Hurst	6:15	7:15		Convention Center	202A			

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
U21A	○	Cassini's Grand Finale: Discoveries and Science Highlights 1 Year Later	8:00	10:00	Convention Center	202B			Planetary Discovery
U21B	○	Toward a More Resilient Global Society	8:00	10:00	Convention Center	202A	GC, GH, NH, SI		Science & Society
A21A	○	Advances in Data Assimilation, Inverse Modeling, and Forecasting of Trace Gases and Aerosols II	8:00	10:00	Convention Center	152B	B, GC, IN, NG		
A21B	○	Advances in Radar Remote Sensing of Clouds and Precipitation: Microphysical Retrievals, Estimation, and Hydrometeorological Applications I	8:00	10:00	Convention Center	151B	GC, H, NH	AMS	Extreme Events & Hazards
A21C	○	Air Pollution, Greenhouse Gases, and Emissions in Asia and Their Interactions with the World I	8:00	10:00	Convention Center	144A-C	GC, GH, SI		Science & Society
A21D	○	Atmospheric Oxidation Capacity Constraints: Laboratory Investigations, Field and Remote Sensing Observations, and Modeling Studies I	8:00	10:00	Convention Center	151A			Climate
A21E	○	Interactions of Aerosols, Clouds, Radiation, and Climate on Regional Scales II	8:00	10:00	Convention Center	152A			Climate
A21F	○	Monsoons: Observations, Subseasonal, Seasonal, and Interannual to Decadal Variability, Forecast, Climate Change, and Extremes III	8:00	10:00	Convention Center	101			Climate
A21G	●	Air Pollution, Aerosol, and Climate Interactions in Asia V Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, GH		Climate
A21H	●	Climate Sensitivity and Feedbacks: Advances and New Paradigms I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC		Climate
A21I	●	Dust in a Changing Climate: From Small-Scale Insights to Large-Scale Understanding III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, EP, GC, GH		Climate
A21J	●	Extreme Wildfires and Smoke Plumes: Past, Present, and Future III Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Extreme Events & Hazards
A21K	●	Processes of (Sub)Cloud Scales: Modeling, Observation, and Parameterization for Larger-Scale Models I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	NG		Climate
A21L	●	Regional Climate Modeling III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, H		Climate
A21M	●	Stable Isotope Investigation of Atmospheric Processes I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B		
AE21A	○	Thunderstorm Effects in the near-Earth Space Environment I	8:00	10:00	Convention Center	201			
AE21B	●	Thunderstorm Effects in the near-Earth Space Environment II Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
B21F	●	Estimating Critical Biogeochemical Processes Across the Soil-Plant-Atmosphere Continuum Using Cutting-Edge Techniques I eLightning	8:00	10:00	Convention Center	eLightning Theater I			Climate
B21G	●	High-Resolution Dendrochronology: Extracting the Mechanism Behind Plant-Atmosphere Interactions eLightning	8:00	10:00	Convention Center	eLightning Theater I	A, GC, H		Climate
B21A	○	Agricultural Systems: Links Between Hydrology and Biogeochemical Cycling I	8:00	10:00	Convention Center	149AB	A, H		Soils
B21B	○	Biogeochemical and Functional Consequences of Vegetation Changes in the Anthropocene II	8:00	10:00	Convention Center	150B	GC		
B21C	○	Monitoring Land Cover and Land Use Change Using Long-Term Time Series Remote Sensing Information III	8:00	10:00	Convention Center	147B			Natural Resources
B21D	○	Surface-Atmosphere Interactions: From Single Flux Measurements to Integrated Synthesis I	8:00	10:00	Convention Center	150A			
B21E	○	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change V	8:00	10:00	Convention Center	143A-C	GC		Climate
B21H	●	Advances in Soil Respiration Research I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC		Soils
B21I	●	Beyond Ecosystem Boundaries: Integrating Terrestrial and Aquatic Processes to Advance Catchment Biogeoscience I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
B21J	●	Carbon Monitoring Systems Research and Applications I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, GC, PA		Science & Society
B21K	●	Global and Regional Nitrous Oxide Budget: Data, Models, and Uncertainty I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, GC		Climate
B21L	●	Centennial Challenge: The Bioatmospheric N Cycle—N Emissions, Transformations, Deposition, and Terrestrial and Aquatic Ecosystem Impacts IV Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, GC, H, OS		Centennial
B21M	●	Past, Present, and Future of Water-Limited Ecosystems: Local Trends to Global Impacts III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, GC, H		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
C21A	●	Altimetry of the Cryosphere and Polar Oceans I	8:00	10:00		Convention Center	Salon H	G, OS		Climate
C21B	●	Glacier Front Dynamics and the Fate of Icebergs Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		Climate
C21C	●	Advances in Ice Sheet-Ocean Interactions: From Measurements to Climate Impacts Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		
C21D	●	Sea Ice-Ocean-Atmosphere Interactions in the "New" Arctic and Southern Oceans Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, OS		Climate
C21E	●	Collaborative Research to Address Changes in the Climate, Hydrology, and Cryosphere of High-Mountain Asia Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
C21F	●	Drivers of Change in the High-Mountain Water Cycle Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, H		Climate
DI21A	○	Subducting Slabs in the Mantle I	8:00	10:00		Marriott Marquis	Archives	MR, S, T, V		Earth Processes
DI21B	●	Connecting the Dynamics of the Core and Mantle to Observations and Experiments II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, NG		Earth Processes
ED21A	○	Diversity, Inclusion, and Equality in Geosciences I: Gender Issues and Solutions	8:00	10:00		Marriott Marquis	Marquis 7-8	H, IN, PA	EGU, JpGU	Science & Society
ED21B	○	The Up-Goer Five Challenge: Tell Us About the Hard Things You Do in Ten Hundred Words I	8:00	10:00		Marriott Marquis	Marquis 1-2			Science & Society
ED21C	●	Mentoring the Whole Student: Strategies for Research Experiences for Undergraduates (REU) I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
EP21A	○	The Role and Relevance of Thresholds, Event Variability, and Disturbances Across Landscapes I	8:00	10:00		Convention Center	147A			Earth Processes
EP21B	●	Drainage Network Reorganization from Source to Sink Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
EP21C	●	Landslides and Landscape Evolution: Mechanisms and Feedbacks I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, NH		Earth Processes
EP21D	●	Sediment Dynamics Across Landscapes Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
G21A	○	Geodetic Imaging and Interpretation of the Seismic Cycle I	8:00	10:00		Marriott Marquis	Marquis A-C	T		
G21B	●	Better Living Through Volcano Geodesy: Constraints on Volcanic Hazards from Geodetic Observations and Multidisciplinary Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH, S, T, V	EGU	Extreme Events & Hazards
G21C	●	The Role of Geodesy and Remote Sensing in Preparedness, Hazard Monitoring, and Disaster Response II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	T, V		Extreme Events & Hazards
GC21A	○	Coupled Human-Natural Systems and Global Environment Change: Innovative Interdisciplinary Approaches I	8:00	10:00		Convention Center	Salon A			Science & Society
GC21B	○	Quantifying Nutrient Budgets for Sustainable Nutrient Management I	8:00	10:00		Convention Center	Salon B	B, GH, SI		Science & Society
GC21C	○	Renewable Energy: Wind, Solar, and Open Topics I	8:00	10:00		Convention Center	Salon C			Climate
GC21D	●	From Hazard to Risk: Indicators of Climate and Weather Extremes for Impacts Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GH, NH, SI		Extreme Events & Hazards
GC21E	●	Climate Extremes: Patterns, Mechanisms, and Attribution Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
GC21F	●	Attribution Science Advancements: Atmosphere, Cryosphere, Hydrosphere, Ocean Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, C, H, OS		Centennial
GC21G	●	Advances in Understanding Impacts of Land Use and Land Cover Change Using Earth System Models and Data Records Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, H, SI		Science & Society
GC21H	●	Carbon Cycle Climate Variability: Observation, Modeling, and Data Assimilation in the Modern Data-Rich Era Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, OS		Climate
GC21I	●	Advances in Monitoring and Reporting Greenhouse Gas (GHG) Emissions and Sinks Across Land Use Categories Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
GH21A	○	Improving Heat Stress-Related Health Outcomes Through Adaptation and Mitigation: Advances in Modeling Heat Stress Hazards, Exposure, and Vulnerability I	8:00	10:00		Marriott Marquis	Independence F-H	GC, PA, SI		Climate
GH21B	●	Climate Influences on Infectious Disease Dynamics and the Potential for Transnational Outbreaks Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, H, NH		
GH21C	●	Developing Climate, Public Health, and Citizen Science Services to Predict and Prevent Climate-Sensitive Health Risks and Serve the Public Good Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, PA, SI		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GP21A	●	Refining Our Understanding of Earth and Planetary Magnetic Processes with Accurate Paleointensity Estimates II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
GP21B	●	General Contributions in Geomagnetism, Paleomagnetism, and Electromagnetism II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
GP21C	●	Planetary Magnetism and Core Processes II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, MR, P		Planetary Discovery
H21A	○	Advances in Quantifying Impacts and Extents of Land Use/Land Cover Change on Hydrology II	8:00	10:00		Convention Center	154AB	B, GC, NH		Data & Emerging Technologies
H21B	○	Centennial Session: 100 Years of Progress in Hydrologic Science I	8:00	10:00		Convention Center	146B			Centennial
H21C	○	Frontiers in Surface Water Quality Measurements, Modeling, and Management I	8:00	10:00		Convention Center	145A	B, EP, GC, GH		Earth Processes
H21D	○	Innovations in Subsurface Contaminant Transport and Remediation I	8:00	10:00		Convention Center	146A	B		
H21E	○	Multisource Remote Sensing of Rivers, Lakes, Reservoirs, and Wetlands I	8:00	10:00		Convention Center	146C			
H21F	○	Postwildfire Hydrologic, Geomorphic, and Biogeochemical Responses I	8:00	10:00		Convention Center	145B	EP		Earth Processes
H21G	○	Water and Society: Using Hydroclimatic Forecasts to Enhance Water Resources Decision Making I	8:00	10:00		Convention Center	156	A, NH, SI		Science & Society
H21H	●	Advances in Large-Scale Modeling and Remote Sensing of Climate-Hydrology-Human Interactions Toward Sustainable Land-Water Resource Management III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC		Climate
H21I	●	Assessing Environmental Impacts, Characterization, Treatment, Injection, and Uses of Hydraulic Fracturing and Oil and Gas Waste Waters II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Natural Resources
H21J	●	Big Data and Machine Learning in Hydrology and Subsurface Flow and Transport III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN		
H21K	●	Characterizing Spatial and Temporal Variability of Hydrological and Biogeochemical Processes Across Scales II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Soils
H21L	●	Ecohydrologic General Contributions II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, GC		
H21M	●	Fate, Transport, and Remediation of Contaminants of Emerging Concern and Their Transformation Products in the Critical Zone IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Soils
H21N	●	Modeling of Reactive Transport Processes Across Scales II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H21O	●	New Insights in Stream and Watershed Restoration: Linking Restoration Design, Habitat Conditions, and Ecological Outcomes II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP		Natural Resources
H21P	●	Risk Assessment of Fluid-Driven Fracturing in Heterogeneous Geologic Media: Numerical, Experimental, and Field Observations Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, V		Earth Processes
H21Q	●	Water and Society: Water Resources Management and Policy in a Changing World III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, PA, SI		Science & Society
IN21B	●	Free and Open-Source Technologies for Advancing Earth and Space Sciences I eLightning	8:00	10:00		Convention Center	eLightning Theater II			Data & Emerging Technologies
IN21A	○	Integrating Data and Services in the Earth, Space, and Environmental Sciences Across Community, National, and International Boundaries I	8:00	10:00		Convention Center	209A-C		EGU, JpGU	Data & Emerging Technologies
IN21C	●	Artificial Intelligence Applications in the Geosciences: Promises and Challenges for the Future II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, H, NH, SI		Data & Emerging Technologies
IN21D	●	Deep Learning for Geoscience Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN21E	●	New and Emerging Technologies for Earth and Space Science II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
MR21A	○	Planetary Interiors: The Role of Volatile Elements and Assessing Habitability I	8:00	10:00		Marriott Marquis	Capitol/Congress	DI		Earth Processes
MR21B	●	Advanced Experimental and Analytical Approaches in Minerals Studies III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI		
NG21A	●	Stochastic Modeling and Nonlinear Waves in Atmosphere, Ocean, Climate Dynamics, and Space Physics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, C, IN, OS		Earth Processes

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
NH21A	○	Remote Sensing: Monitoring, Prediction, and Hazard Mitigation of Hydroclimatic Extreme Events	8:00	10:00	Marriott Marquis	Marquis 9-10			Extreme Events & Hazards
NH21B	●	Advances in Landslide Science to Assess Landslide Hazards and Risk Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NH21C	●	Landslide Remote Sensing, InSAR-Based Monitoring, Modeling, and Early Warning Posters	8:00	12:20	Convention Center	Hall A-C (PH)	H, IN		Extreme Events & Hazards
NS21A	○	Advances in Exploration Geophysics V	8:00	10:00	Marriott Marquis	Marquis 12-13	GP, H, S	SEG	Natural Resources
OS21A	○	At the Intersection of Society and Our Coasts: Advancements in Coastal Ocean Science and Applications to the Human Dimension I	8:00	10:00	Convention Center	102AB			Science & Society
OS21B	○	Nearshore Physical Processes III	8:00	10:00	Convention Center	103AB			Earth Processes
OS21C	●	Novel Data Analysis Techniques for Big Data Applications in Marine Science Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, IN		Data & Emerging Technologies
OS21D	●	Land-Based Remote Sensing of the Coastal Ocean: Science and Technological Innovations I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
OS21E	●	New Opportunities in Ocean and Earth Observing at the Seafloor Interface Posters	8:00	12:20	Convention Center	Hall A-C (PH)	NS, S		Data & Emerging Technologies
OS21F	●	General Chemical and Biological Oceanography Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
P21A	○	A First Look at 162173 Ryugu and 101955 Bennu: Hayabusa 2 and OSIRIS-REx Arrive at Their Respective Target Asteroids I	8:00	10:00	Convention Center	207A			Planetary Discovery
P21B	○	New Perspectives on Dynamic Lunar Processes I	8:00	10:00	Convention Center	206	EP, V		
P21C	●	Aurora and Airglow in Planetary and Exoplanetary Atmospheres I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	SA		Planetary Discovery
P21D	●	Carbon Across the Solar System II Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
P21E	●	From the Earth to the Moons: Unraveling the Geologic, Oceanographic, and Chemical Mysteries of Ice and Ocean Worlds I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	C, OS		Planetary Discovery
P21F	●	Titan: Looking Backward, Looking Forward I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
P21G	●	Ultraviolet Observing of Solar System Targets I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
P21H	●	"The New Mars Underground": Science and Exploration of a New Deep Frontier I Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, C, H, NS		Planetary Discovery
P21I	●	Curiosity's Exploration of Vera Rubin Ridge, Gale Crater, Mars: Redox Interfaces as Indicators of Past Habitable Environments I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Planetary Discovery
PA21A	○	Communication of Science: Practice, Research, and Reflection I	8:00	10:00	Marriott Marquis	Marquis 3-4	C, ED, GC, NH		Science & Society
PA21B	●	Addressing Societal Challenges Through the Global Earth Observation System of Systems (GEOSS) Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Science & Society
PA21C	●	Earth Observation Applications in Support of Global Policy Frameworks Posters	8:00	12:20	Convention Center	Hall A-C (PH)	SI		Science & Society
PA21D	●	Implementing Science Tools for Cities and Climate Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, NH		Science & Society
PA21E	●	Progress Toward Enhancing National Preparedness for Space Weather Posters	8:00	12:20	Convention Center	Hall A-C (PH)	NH, SI		Extreme Events & Hazards
PA21F	●	Science to Action: Education for Community/Scientist Problem Solving Posters	8:00	12:20	Convention Center	Hall A-C (PH)	ED		Science & Society
PA21G	●	The Hazards of Hazard Communication: Importance, Rewards, and Challenges of Science in the Public Sphere Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Extreme Events & Hazards
PP21A	○	Alkenones in Marine, Estuarine, and Lacustrine Environments: New Biogeochemical Insights and Paleoclimatic Applications I	8:00	10:00	Convention Center	Salon G	B		Climate
PP21B	○	Terrestrial Hydroclimate Variability in the Americas: Assessing Causes and Impacts Using Proxies and Models I	8:00	10:00	Convention Center	Salon I	B, EP, GC		Climate
PP21C	●	Paleo-CO2 Reconstruction in the Phanerozoic Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, GC		Climate

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PP21D	●	Chasing Carbon Cycle Perturbations Through the Cenozoic Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
PP21E	●	Mechanisms and Drivers of Atlantic Meridional Overturning Circulation (AMOC) Structure and Variability in Past Climate Change and Their Impact on Climate and Biogeochemistry Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, GC, OS		Climate
PP21F	●	Water Isotope Systematics: Improving Modern and Paleoclimate Interpretations Posters	8:00	12:20	Convention Center	Hall A-C (PH)	A, B, C, H		Climate
PP21G	●	Advances in Understanding Calcareous Nannofossil Response to Climate Change in Modern and Ancient Oceans Posters	8:00	12:20	Convention Center	Hall A-C (PH)	B, OS		
S21A	○	Induced and Triggered Earthquakes: Theory, Observations, Impact I	8:00	10:00	Marriott Marquis	Independence E			
S21B	○	Seismology Contributions: General I	8:00	10:00	Marriott Marquis	Independence D			
S21C	●	Earthquake Source Physics Inferred from Macroscopic Source Parameters and Seismicity Parameters Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
S21D	●	The Mechanical and Seismological Effects of Dynamic Fracturing on Earthquake Source Mechanics, Fault Zone Structure, and Underground Explosions Posters	8:00	12:20	Convention Center	Hall A-C (PH)	MR, NG		Earth Processes
S21E	●	Heterogeneity and Scaling Relations Impacting the Geomechanical Behavior of Fault Zones Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
SA21A	●	New Scientific Measurements in near-Earth Space II Posters	8:00	12:20	Convention Center	Hall A-C (PH)	SM		Data & Emerging Technologies
SH21A	○	The Forefront of Kappa Distributions: Understanding Plasma Processes in the Heliosphere and Kolmogorov in Space—Application and Extension of Turbulence Theory in Space Plasmas I	8:00	10:00	Convention Center	207B	SM		
SH21B	●	Breakthrough Observations of the Sun on Suborbital-Class Platforms Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
SH21C	●	The Forefront of Kappa Distributions: Understanding Plasma Processes in the Heliosphere and Kolmogorov in Space—Application and Extension of Turbulence Theory in Space Plasmas Posters	8:00	12:20	Convention Center	Hall A-C (PH)	SM		
SM21A	○	Recent Advances in Understanding Energy-Dependent Dynamics of Radiation Belt Particles I	8:00	10:00	Convention Center	204A-C			
T21A	○	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia I	8:00	10:00	Marriott Marquis	Liberty N-P	EP, NH, S		Extreme Events & Hazards
T21B	○	The Varied Roles of Aqueous Fluids near the Subduction Interface I	8:00	10:00	Marriott Marquis	Liberty L	MR, S, V		Earth Processes
T21C	○	Three-Dimensional Fault Architecture and Geometrical Segmentation from Fault Observations to Seismic Hazard Assessment I	8:00	10:00	Marriott Marquis	Liberty M	G, S		
T21D	●	Crystallographic Fabrics and Microstructures: Geodynamic Marker of Earth's History and Today's Internal Structure II Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
T21E	●	Flow and Fracture: Mixed Brittle-Viscous Behavior Throughout the Lithosphere II Posters	8:00	12:20	Convention Center	Hall A-C (PH)	MR, NH, S, V		Earth Processes
T21F	●	Subduction Top to Bottom-2 IV Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
T21G	●	Subduction Top to Bottom-2 V Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
V21A	○	Data Science and Geochemistry: Applying a Data-Driven Approach in Geochemistry-Centric Studies I	8:00	10:00	Marriott Marquis	Liberty I-K	B, EP, H, IN		Data & Emerging Technologies
V21B	○	The 2018 Eruptions of Kīlauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galápagos I	8:00	10:00	Marriott Marquis	Marquis 6	GH, IN, S, T		Extreme Events & Hazards
U22A	○	The Giants of Tectonophysics	10:20	12:20	Convention Center	202A	G, S, T		Centennial
U22B	○	The New Jupiter as Revealed by Juno	10:20	12:20	Convention Center	202B	A, P, SH, SM		Planetary Discovery
A22A	○	Bjerknes Lecture	10:20	11:20	Marriott Marquis	Marquis 5			
B22A	○	Advancements in Global Land Cover and Land Use Monitoring I	10:20	12:20	Convention Center	147B	GC, H		
B22B	○	Agricultural Systems: Links Between Hydrology and Biogeochemical Cycling II	10:20	12:20	Convention Center	149AB	A, H		Soils
B22C	○	Surface-Atmosphere Interactions: From Single Flux Measurements to Integrated Synthesis II	10:20	12:20	Convention Center	150A			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
B22D	○	Vulnerability of Permafrost Carbon to Climate Change I	10:20	12:20		Convention Center	143A-C	C, GC		Soils
C22A	○	GRACE-FO and ICESat-2: NASA's Newest Missions for Cryospheric Science I	10:20	12:20		Convention Center	Salon H	G		Earth Processes
C22B	○	Preliminary Discoveries from the 2015–2018 Shackleton Glacier Deep Field Camp, Antarctica I	10:20	12:20		Convention Center	Salon G	B, EP, V		Earth Processes
DI22A	○	Subducting Slabs in the Mantle II	10:20	12:20		Marriott Marquis	Archives	MR, S, T, V		Earth Processes
ED 22A	○	Diversity, Inclusion, and Equality in Geosciences II: Strategies for Engagement and Retention	10:20	12:20		Marriott Marquis	Marquis 7-8	H, IN, PA	EGU, JpGU	Science & Society
EP22A	○	The Role and Relevance of Thresholds, Event Variability, and Disturbances Across Landscapes II	10:20	12:20		Convention Center	147A			Earth Processes
G22A	○	Plate Motion, Continental Deformation, and Interseismic Strain Accumulation I	10:20	12:20		Marriott Marquis	Independence D	GP, NH, S, T		Earth Processes
GC22A	○	Coupled Human–Natural Systems and Global Environment Change: Innovative Interdisciplinary Approaches II	10:20	12:20		Convention Center	Salon A			Science & Society
GC22B	○	Quantifying Nutrient Budgets for Sustainable Nutrient Management II	10:20	12:20		Convention Center	Salon B	B, GH, SI		Science & Society
GC22C	○	Renewable Energy: Marine and Hydrokinetic I	10:20	12:20		Convention Center	Salon C	A, H, PA		
GH22A	○	Global Warming, Urban Heat Island, and Public Health: Vulnerability, Impacts, and Adaptation I	10:20	12:20		Marriott Marquis	Independence F-H	B, H, NH, PA		Extreme Events & Hazards
GP22A	○	Frontiers in Electromagnetic Methods I	10:20	12:20		Marriott Marquis	Marquis A-C			Natural Resources
H22A	○	Advances in Adaptation Methods for Extreme Precipitation and Flooding I	10:20	12:20		Convention Center	156			
H22B	○	Applications in Snow Hydrology: Linking Seasonal Snow to Natural Processes and Society I	10:20	12:20		Convention Center	101	C		Climate
H22C	○	Centennial Session: 100 Years of Progress in Hydrologic Science II	10:20	12:20		Convention Center	146B			Centennial
H22D	○	Coupled Dynamics of Physical, Biological, Geomorphic, Hydrologic, and Chemical Processes in the Hyporheic Zone over a Range of Spatial and Temporal Scales I	10:20	12:20		Convention Center	151A	B		Earth Processes
H22E	○	Frontiers in Surface Water Quality Measurements, Modeling, and Management II	10:20	12:20		Convention Center	145A	B, EP, GC, GH		Earth Processes
H22F	○	Innovations in Subsurface Contaminant Transport and Remediation II	10:20	12:20		Convention Center	146A	B		
H22G	○	Multisource Remote Sensing of Rivers, Lakes, Reservoirs, and Wetlands II	10:20	12:20		Convention Center	146C			
H22H	○	Stable Isotopes in the Critical Zone: Methods, Applications, and Process Interpretations I	10:20	12:20		Convention Center	145B	B		Soils
H22I	○	Water–Soil–Vegetation Dynamic Nexuses and Equilibriums in Changing Climate I	10:20	12:20		Convention Center	154AB			Climate
IN22A	○	Changing Culture Through Credit in Support of Enabling FAIR Data I	10:20	12:20		Convention Center	209A-C			Data & Emerging Technologies
IN22B	○	Citizen Science: Engaging a Wider Community to Better Understand Our Planet I	10:20	12:20		Marriott Marquis	Liberty I-K			
MR22A	○	Planetary Interiors: The Role of Volatile Elements and Assessing Habitability II	10:20	12:20		Marriott Marquis	Capitol/Congress	DI		Earth Processes
NG22A	○	Advances in Data Assimilation, Predictability, and Uncertainty Quantification I	10:20	12:20		Marriott Marquis	Marquis 12-13	A, GC, H, OS		Earth Processes
NH22A	○	Unmanned Aircraft Systems (UAS) in Geosciences: Research and Development	10:20	12:20		Marriott Marquis	Marquis 9-10	B, H, OS, V		Data & Emerging Technologies
OS22A	○	Biogeochemical Cycling in Estuaries, Coastal Waters, and Their Watersheds: Natural Variability, Response to Land Use and Climate Change, and Management Implications I	10:20	12:20		Convention Center	103AB	B, GC, H		
P22A	○	A First Look at 162173 Ryugu and 101955 Bennu: Hayabusa 2 and OSIRIS-REx Arrive at Their Respective Target Asteroids II	10:20	12:20		Convention Center	207A			Planetary Discovery
P22B	○	Planet Mercury: Present Understanding and Promise for Future Discovery I	10:20	12:20		Convention Center	206			Planetary Discovery
PA22C	●	Communication of Science: Practice, Research, and Reflection II eLightning	10:20	12:20		Convention Center	eLightning Theater I	C, ED, GC, NH		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PA22D	●	Science to Action: Empowering Ecologists to Engage in the Process of Translation for Informed Environmental Decision-Making I eLightning	10:20	12:20		Convention Center	eLightning Theater II	SI		Science & Society
PA22A	○	Connecting Earth Sciences and Risk Financing and Transfer: Case Studies on Integration and Application of Earth Observations in the Insurance Sectors	10:20	12:20		Marriott Marquis	Marquis 3-4	GC, H, NH, SI		Science & Society
PA22B	○	Leveraging Social Media, Crowdsourcing, Citizen Science, and Emerging Technologies for Robust Scientific Understanding and Hazard Response I	10:20	12:20		Marriott Marquis	Marquis 1-2	NH		Data & Emerging Technologies
PP22A	○	Development of the Cryosphere: Evidence from Sedimentary Records in the High Latitudes I	10:20	12:20		Convention Center	102AB	C, OS		Climate
PP22B	○	High-Resolution Paleoclimate and Paleoenvironmental Records from Africa: Providing Context for Human Evolution and Dispersal from the Pliocene to the Present I	10:20	12:20		Convention Center	144A-C			Climate
PP22C	○	Understanding the Indian-Asian-Australian Monsoon: Evolution and Links to Tectonic, Climatic, and Biogeochemical Cycles I	10:20	12:20		Convention Center	Salon I			Climate
S22A	○	Induced and Triggered Earthquakes: Theory, Observations, Impact II	10:20	12:20		Marriott Marquis	Independence E			
SH22A	○	Magnetic Fields in the Solar Corona: Observations and Modeling I	10:20	12:20		Convention Center	204A-C			
SH22B	○	Visions of Future Innovation Across Space Physics and Aeronomy I	10:20	12:20		Convention Center	207B	SA, SM		Centennial
SM22A	○	The Role of Small-Scale Mechanisms in the Driving of Particle Energization and Loss in the Inner Magnetosphere and Radiation Belts I	10:20	12:20		Convention Center	201			
T22A	○	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia II	10:20	12:20		Marriott Marquis	Liberty N-P	EP, NH, S		Extreme Events & Hazards
T22B	○	Volatile Cycling in Subduction Zones: Fluid Inputs, Pathways and Outputs, and Their Impact on Geodynamic Processes and Natural Hazards I	10:20	12:20		Marriott Marquis	Liberty L			Earth Processes
T22C	○	Whose Fault Is It? Relating Structural and Compositional Heterogeneity to Slip Behavior I	10:20	12:20		Marriott Marquis	Liberty M			
TT22A	TT	Magnetic Reconnection and NASA's Magnetospheric Multiscale (MMS) Mission	10:20	10:50		Marriott Marquis	University of DC/Catholic University	P, SH, SM		
V22A	○	2018 Bowen Lecture	10:20	12:20		Marriott Marquis	Marquis 6			
TT22B	TT	Solar Wind Turbulence: Latest Advances and New Insights	10:50	11:20		Marriott Marquis	University of DC/Catholic University	NG, SH		
A22B	○	Charney Lecture	11:20	12:20		Marriott Marquis	Marquis 5			
TT22C	TT	Overview of Mars Meteorites and Some of the Secrets They Contain	11:20	11:50		Marriott Marquis	University of DC/Catholic University	EP, P, V		
TT22D	TT	Aerosol Mixing State: Metrics, Measurements, Modeling	11:50	12:20		Marriott Marquis	University of DC/Catholic University	A		

Tuesday, 11 December | P.M.

U23B	🗝	Frontiers of Geophysics Lecturer: James Balog	12:30	1:30		Convention Center	Ballroom A-C			
U23A	○	How to Support and Develop the Modern Digital Research Ecosystem to Maximize Benefits of Science for Society and the Research Community	1:40	3:40		Convention Center	202A	IN	EGU, JpGU	Centennial
A23A	○	Calibration and Validation of Passive Satellite Earth Observation Systems I	1:40	3:40		Convention Center	151B	H, IN	AMS, EGU	Data & Emerging Technologies
A23B	○	Cloud Properties, Processes, and Uncertainties: Observations and Analysis II	1:40	3:40		Convention Center	152A			
A23C	○	Dust in a Changing Climate: From Small-Scale Insights to Large-Scale Understanding I	1:40	3:40		Convention Center	151A	B, EP, GC, GH		Climate
A23D	○	Extreme Weather Events: Forecast Skill, Uncertainty Quantification, and Impact Modeling I	1:40	3:40		Convention Center	152B	H, NH, SI		Extreme Events & Hazards
A23E	○	Extreme Wildfires and Smoke Plumes: Past, Present, and Future I	1:40	3:40		Convention Center	144A-C			Extreme Events & Hazards
A23F	○	The Madden-Julian Oscillation and Its Global Impacts: Observations, Modeling, and Prediction I	1:40	3:40		Convention Center	143A-C			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
A23G	●	Assessment, Enhancement, and Integration of Arctic Observing Systems I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, C, OS		Data & Emerging Technologies
A23H	●	Bridging the Gap from Climate to Extreme Weather: Theory, Modeling, and Observations I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
A23I	●	Data Assimilation, Reanalysis, and Observing System Simulation Experiments: Theory and Applications IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, H, NG	AMS, EGU	Data & Emerging Technologies
A23J	●	High-Resolution Weather and Climate Modeling on Large Supercomputers I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, OS		Climate
A23K	●	Insights on Clouds, Convection, and Climate Sensitivity from Idealized Modeling Studies I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A23L	●	Mesoscale and Severe Convective Storms: Understanding, and Model Development and Evaluation I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH		Extreme Events & Hazards
A23M	●	Urban and Regional Air Quality: Emissions, Land Surface Forcing, and Meteorological Impacts IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC, H		
A23N	●	Weather and Climate Modeling Across Scales: From Global to Convection-Permitting I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H		
B23A	○	Advances in Soil Respiration Research II	1:40	3:40		Convention Center	150B	GC		Soils
B23B	○	Advances in the Remote Sensing of the Terrestrial Carbon Cycle I	1:40	3:40		Convention Center	147B	GC		
B23C	○	Interactions Between Hydrological and Biogeochemical Change in Permafrost Environments I	1:40	3:40		Convention Center	150A	C, H		Soils
B23D	○	Smart Farming Enabled by Remotely Sensed Big Data I	1:40	3:40		Convention Center	149AB	EP, IN		Data & Emerging Technologies
B23E	●	Integrated Habitability Science: Forecasting the Trajectory of Life and Planetary Habitability on Earth and Beyond Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, OS, P, V	JpGU	
B23F	●	Picky Eating in the Deep Subsurface? Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		
B23G	●	Soil Carbon Change and Persistence in the Anthropocene Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		Soils
B23H	●	Interdisciplinary Investigations on Interactions Between Microbes, Nutrients, and Minerals in Terrestrial Ecosystems: Experimental Studies, Field Work, and Modeling Analysis I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Soils
B23I	●	Soil Carbon Dynamics and Impacts of Land Use and Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		Soils
B23J	●	Monitoring Land Cover and Land Use Change Using Long-Term Time Series Remote Sensing Information Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Natural Resources
B23K	●	Seeing Is Believing: Advances in Understanding of Root-Rhizosphere Dynamics Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Soils
B23L	●	Toward a Global Assessment of Regional Carbon Budgets Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
B23M	●	State of the Carbon Cycle in North America: Key Findings from Assessing a Decade of Science, Decisions, and Management Impacts II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, OS, PA		Climate
C23A	○	The Nye Lecture and Honored Member Presentations	1:40	3:40		Marriott Marquis	Marquis 5			
DI23A	○	Advances in Computational Geosciences I	1:40	3:40		Marriott Marquis	Archives	C, GP, S		
DI23B	●	Subducting Slabs in the Mantle III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	MR, S, T, V		Earth Processes
ED23A	○	Mentoring the Whole Student: Strategies for Research Experiences for Undergraduates (REU) II	1:40	3:40		Marriott Marquis	Marquis 7-8			Climate
ED23B	○	The Up-Goer Five Challenge: Tell Us About the Hard Things You Do in Ten Hundred Words II	1:40	3:40		Marriott Marquis	Marquis 1-2			Science & Society
ED23C	●	Demonstrations, Hands-on Activities, and Simple Measurements for Education Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
ED23D	●	Diversity, Inclusion, and Equality in Geosciences III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, IN, PA	EGU, JpGU	Science & Society
ED23E	●	Scientific Collections as an Essential Gateway to Informal Science Learning Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
ED23F	●	3D Printing in Earth and Planetary Science Education and Outreach Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
EP23A	●	Landslides and Landscape Evolution: Mechanisms and Feedbacks II	1:40	3:40		Convention Center	147A	H, NH		Earth Processes
EP23B	●	River Deltas: Sediment Accumulators and Biogeochemical Reactors I	1:40	3:40		Convention Center	145B			Earth Processes
EP23C	●	Coastal Geomorphology and Morphodynamics: Observations and Modeling at the Coastal Margin Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, NH, OS		Earth Processes
EP23D	●	The Past, Present, and Future of Arctic Coastal Change Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, NH, OS		
EP23E	●	Close-Range Remote Sensing of Nearshore Processes and Coastal Morphology III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Data & Emerging Technologies
EP23F	●	Planets as Experiments: Surface Processes in Extraterrestrial Environments Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P		Planetary Discovery
EP23G	●	The Role and Relevance of Thresholds, Event Variability, and Disturbances Across Landscapes Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
G23A	●	GRACE, GRACE Follow-on, and Beyond II	1:40	3:40		Marriott Marquis	Independence D	C, GC, H, OS		Climate
G23B	●	Geodetic Imaging and Interpretation of the Seismic Cycle II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	T		
G23C	●	Plate Motion, Continental Deformation, and Interseismic Strain Accumulation II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GP, NH, S, T		Earth Processes
GC23A	●	Estimating the Economic and Physical Impacts of Climate Change Through Econometrics and Other Methods in Support of Policy Analysis I	1:40	3:40		Convention Center	Salon A			Climate
GC23B	●	GEC New Fellows Session	1:40	3:40		Convention Center	Salon C			Climate
GC23C	●	Use of Earth Observations in Mitigating Major Environmental Challenges in South and Southeast Asia I	1:40	3:40		Convention Center	Salon B			Climate
GC23D	●	Renewable Energy: Wind, Solar, and Open Topics II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
GC23E	●	Renewable Energy: Marine and Hydrokinetic Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H, PA		
GC23F	●	Advancements in Adaptation Science to Support Sustainable Water Quality Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Climate
GC23G	●	Marine-Based Methods of Global CO2 Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, OS		Climate
GC23H	●	Quantifying Nutrient Budgets for Sustainable Nutrient Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GH, SI		Centennial
GH23A	●	Climate Link to Infectious Diseases: Toward Development of Successful Early Warning Systems I	1:40	3:40		Marriott Marquis	Independence F-H	GC, OS		Science & Society
GH23B	●	Global Warming, Urban Heat Island, and Public Health: Vulnerability, Impacts, and Adaption Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, H, NH, PA		Extreme Events & Hazards
GH23C	●	Improving Heat Stress-Related Health Outcomes Through Adaptation and Mitigation: Advances in Modeling Heat Stress Hazards, Exposure, and Vulnerability Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, PA, SI		Climate
GP23A	●	Motion Between Hot Spots and True Polar Wander I	1:40	3:40		Marriott Marquis	Marquis A-C	DI, G, T		Earth Processes
H23A	●	Hydrologic Data Assimilation I	1:40	3:40		Convention Center	156			Data & Emerging Technologies
H23B	●	Innovations in Subsurface Contaminant Transport and Remediation III	1:40	3:40		Convention Center	146A	B		
H23C	●	Multisource Remote Sensing of Rivers, Lakes, Reservoirs, and Wetlands III	1:40	3:40		Convention Center	146C			
H23D	●	Runoff Generation Processes: Integrating Observations and Processes over Variable Scales I	1:40	3:40		Convention Center	154AB			
H23E	●	Solute and Sediment Delivery from Headwaters to the Sea: Impacts of Land Use and Aquatic Connectivity I	1:40	3:40		Convention Center	145A			Science & Society
H23F	●	Water and Society: The Future of Coupled Water-Energy Systems Confronting Global Change II	1:40	3:40		Convention Center	146B	GC, NH, PA, SI		Climate
H23G	●	Advances in Adaptation Methods for Extreme Precipitation and Flooding II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H23H	●	Coupled Dynamics of Physical, Biological, Geomorphic, Hydrologic, and Chemical Processes in the Hyporheic Zone over a Range of Spatial and Temporal Scales II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H23I	●	Frontiers in Surface Water Quality Measurements, Modeling, and Management III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, GC, GH		
H23J	●	Groundwater Sustainability Studies: Integrating Monitoring, Modeling, and Policy IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
H23K	●	Groundwater-Surface Water Interactions: Identifying and Integrating Physical, Biological, and Chemical Patterns and Processes Across Systems and Scales V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		Earth Processes
H23L	●	Postwildfire Hydrologic, Geomorphic, and Biogeochemical Responses II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP		Earth Processes
H23M	●	Recent Advances in Data Assimilation and Optimization for Subsurface Flow Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H23N	●	Role of New Data Sets and Analysis Methods to Advance Hydrological Process Understanding at the Catchment Scale Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP		
H23O	●	Space-Time Data and Models Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GH, NG, OS		Data & Emerging Technologies
H23P	●	Stable Isotopes in the Critical Zone: Methods, Applications, and Process Interpretations II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		Soils
H23Q	●	Water and Society: Using Hydroclimatic Forecasts to Enhance Water Resources Decision-Making II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, NH, SI		Science & Society
H23R	●	Water-Soil-Vegetation Dynamic Nexuses and Equilibriums in Changing Climate II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
IN23A	●	Citizen Science: Engaging a Wider Community to Better Understand Our Planet Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
IN23B	●	Integrating Data and Services in the Earth, Space, and Environmental Sciences Across Community, National, and International Boundaries II Posters	1:40	6:00		Convention Center	Hall A-C (PH)		EGU, JpGU	Data & Emerging Technologies
MR23A	○	An Integrated Approach for Observations, Experiments, and Models of Earth Deformation (PPEM) I	1:40	3:40		Marriott Marquis	Capitol/Congress	T		
MR23B	●	Planetary Interiors: The Role of Volatile Elements and Assessing Habitability III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI		Earth Processes
NG23A	○	Advances in Data Assimilation, Predictability, and Uncertainty Quantification: Geophysical Fluid Dynamics II	1:40	3:40		Marriott Marquis	Marquis 12-13	A, GC, H, OS		Earth Processes
NH23A	○	Compound and Cascading Events: An Emerging Challenge for Natural Hazard Risk Assessment and Management	1:40	3:40		Marriott Marquis	Independence E	A, H, OS, S		Extreme Events & Hazards
NH23B	○	Using Earth Observations and Imagery Analysis for Risk and Resilience Assessment, Risk Communication, and Monitor Response and Recovery Efforts I	1:40	3:40		Marriott Marquis	Marquis 9-10			Extreme Events & Hazards
NH23C	●	Extreme Wildfires in 2018 II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		Extreme Events & Hazards
NH23D	●	Unmanned Aircraft Systems (UAS) in Geosciences: Research and Development Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, H, OS, V		Data & Emerging Technologies
NH23E	●	Wildfires: Triggers, Predictability, and Impact Assessment Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NS23A	●	Advances in Exploration Geophysics IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GP, H, S	SEG	Natural Resources
NS23B	●	Cosmic Ray Muon Tomography: An Emerging Technique for Imaging and Monitoring Large Volumes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	V		Data & Emerging Technologies
OS23A	○	Biogeochemical Cycling in Estuaries, Coastal Waters, and Their Watersheds: Natural Variability, Response to Land Use and Climate Change, and Management Implications II	1:40	3:40		Convention Center	103AB	B, GC, H		
OS23B	○	Global Developments in Seafloor Mapping: Gaining a Greater Insight into Earth Systems I	1:40	3:40		Convention Center	102AB	IN		
OS23C	○	Modeling of Gas Hydrate-Related Systems I	1:40	3:40		Convention Center	101	B, H		
OS23D	●	Gas Hydrate-Bearing Sediments: Recent Advances in Characterization, Experiments, and Modeling Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		
OS23E	●	Rare Earth Elements (REEs) as Tracers of Oceanic Processes: New Insights into the Geochemical Mechanisms Behind Their Patterns and Profiles Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PP		Earth Processes
OS23F	●	Air-Sea Interaction from Tropics to Extratropics: Ocean Mesoscales, Teleconnections, and Climate Predictions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
OS23G	●	Nearshore Physical Processes IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
P23A	○	The Interiors of Jupiter and Saturn in the Era of Juno and Cassini I	1:40	3:40		Convention Center	207A	G, GP		Planetary Discovery
P23B	○	"The New Mars Underground": Science and Exploration of a New Deep Frontier II	1:40	3:40		Convention Center	206	B, C, H, NS		Planetary Discovery
P23C	●	Science for a New Era of Lunar Exploration II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, EP, SI, V		Planetary Discovery
P23D	●	New Perspectives on Dynamic Lunar Processes II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, V		
P23E	●	Fifty Years of Apollo Science: A Legacy of Lunar Science from Orbit, the Surface, and Long-Lived Surface Experiments II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, G, S, V		Planetary Discovery
P23F	●	Planet Mercury: Present Understanding and Promise for Future Discovery II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Planetary Discovery
P23G	●	The Origin, Evolution, and Fate of Comets: New Results from Rosetta, Other Missions, and Ground-Based Observations I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SH, SM		
PA23C	●	Leveraging Social Media, Crowdsourcing, Citizen Science, and Emerging Technologies for Robust Scientific Understanding and Hazard Response II eLightning	1:40	3:40		Convention Center	eLightning Theater I	NH		Data & Emerging Technologies
PA23D	●	Science to Action: Best Practices and Lessons Learned from Interdisciplinary Research I eLightning	1:40	3:40		Convention Center	eLightning Theater II	GC, GH, H, NH		Science & Society
PA23A	○	Earth Observation Applications in Support of Global Policy Frameworks I	1:40	3:40		Marriott Marquis	Marquis 3-4	SI		Science & Society
PA23B	○	The Hazards of Hazard Communication: Importance, Rewards, and Challenges of Science in the Public Sphere I	1:40	3:40		Marriott Marquis	Liberty N-P			Extreme Events & Hazards
PA23E	●	Communication of Science: Practice, Research, and Reflection Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, ED, GC, NH		Science & Society
PA23F	●	Enhancing the Impact of Earth and Space Sciences Through Project and Research Community Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	ED,SI		Science & Society
PA23G	●	Science to Action: Closing Gaps to Enable Science-Based, Data-Driven Decision-Making Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PP23A	○	Biomarkers from Source to Sink: Proxy Development, Mechanistic Theory, and Applications I	1:40	3:40		Convention Center	Salon G	B		Climate
PP23B	○	High-Resolution Marine and Terrestrial Proxies: Bridging the Anthropocene to the Holocene and Beyond I	1:40	3:40		Convention Center	Salon H	B, EP, GC, OS, H		Climate
PP23C	○	Understanding the Indian-Asian-Australian Monsoon: Evolution and Links to Tectonic, Climatic, and Biogeochemical Cycles II	1:40	3:40		Convention Center	Salon I			Climate
PP23D	●	Terrestrial Hydroclimate Variability in the Americas: Assessing Causes and Impacts Using Proxies and Models Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, GC		Climate
PP23E	●	Development of the Cryosphere: Evidence from Sedimentary Records in the High Latitudes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, OS		Climate
PP23F	●	The Changing Face of the Mid-Pleistocene Transition Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP23G	●	Fifty Years of Sea Levels, Chronology, and Climate Change from Coral Reefs Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Climate
S23A	●	Induced Seismicity in the United States and Canada Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, NG, T		Science & Society
S23B	●	The 15 November 2017 Pohang Earthquake Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S23C	●	Site Characterization Using Single-Station and Array Methods Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NS		Soils
SA23A	●	Aeronomy: General Contributions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	IN, NH, SH, SM		
SA23B	●	Employing Space Physics to Mitigate Space Weather Impacts Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH, SI		Science & Society
SA23C	●	Identifying and Mitigating Challenges Related to "Big Data" in Space Science Posters	1:40	6:00		Convention Center	Hall A-C (PH)	IN, SH, SM		Data & Emerging Technologies
SH23A	○	Breakthrough Observations of the Sun on Suborbital-Class Platforms I	1:40	3:40		Convention Center	209A-C			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
SH23B	○	Waves, Instabilities, and Turbulence in Magnetized Plasma Structures I	1:40	3:40		Convention Center	207B	SM		
SH23C	●	Magnetic Fields in the Solar Corona: Observations and Modeling Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH23D	●	Waves, Instabilities, and Turbulence in Magnetized Plasma Structures Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SM		
SM23A	○	Imaging and Analysis of Dayside Transients and Dynamics II	1:40	3:40		Convention Center	201	P, SH		Data & Emerging Technologies
SM23B	○	Plasma Dynamics in the Nightside Transition Region I	1:40	3:40		Convention Center	202B			
SM23C	○	Understanding Earth's Ring Current: Measurements, Theory, and Modeling I	1:40	3:40		Convention Center	204A-C			
SM23D	●	Magnetospheres in the Inner Solar System I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P		
SM23E	●	Magnetospheres in the Outer Solar System I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P		
SM23F	●	Moon-Plasma Interactions Throughout the Solar System II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SM23G	●	Our Evolving Understanding of Auroral Processes and Magnetosphere Dynamics at Jupiter Through Juno and Earth-Based Observations II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P		
T23A	●	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, NH, S		Extreme Events & Hazards
T23B	●	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia VI Poster	1:40	6:00		Convention Center	Hall A-C (PH)	EP, NH, S		Extreme Events & Hazards
T23C	●	Coupled tectonic and depositional systems in the Eastern Himalaya, Bengal Basin and Fan Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, NH, PP		Earth Processes
T23D	●	Deciphering Active Faults: Properties, Processes and Activity Assessment II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
T23E	●	Oceanic Lithosphere: Structure and Evolution from Creation to Destruction II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, S, V		Earth Processes
V23A	○	A Multidisciplinary Approach to Investigating the Formation of Earth and Its Chemically Distinct Reservoirs I	1:40	3:40		Marriott Marquis	Liberty M	DI, MR, P	GS, MSA	Earth Processes
V23B	○	Advances in Metamorphic Processes: Mechanisms, Conditions, Rates, and Drivers I	1:40	3:40		Marriott Marquis	Liberty L	T		Earth Processes
V23C	○	Magmatic Systems and Their Interactions With Tectonic Processes in Rifts, Arcs, Ridges, and Volcanic Fields I	1:40	3:40		Marriott Marquis	Liberty I-K	G, NH, T		Earth Processes
V23D	●	Applications of Unmanned Aerial Systems (UAS) to the Study of Volcanic Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH		Data & Emerging Technologies
V23E	●	Beyond the Elastic Half-Space: Understanding Volcanic Processes and Their Timescales Through More Realistic Deformation Modeling Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, MR		
V23F	●	Bridging the Gap Between Field- and Laboratory-Based Studies of Effusive and Explosive Volcanism Through Large-Scale Experiments Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, NH, P, T		Extreme Events & Hazards
V23G	●	Combining Monitoring Data with Models to Investigate Volcanic Unrest Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH, S		Earth Processes
V23I	●	Data Science and Geochemistry: Applying a Data-Driven Approach in Geochemistry-Centric Studies Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, H, IN		Data & Emerging Technologies
V23J	●	Developments in Magma-Water Interaction: Fieldwork, Experiments, and Computations Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, NH, OS		Earth Processes
V23K	●	Interdisciplinary Characterization of Volcanic Explosion Source Dynamics Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH, S		Earth Processes
V23L	●	Oceanic Intraplate Volcanism Posters	1:40	6:00		Convention Center	Hall A-C (PH)	MR, NH, OS		
V23M	●	The Emerging Multidisciplinary Science of Fire and Ice: Understanding the Causes, Timing, and Consequences of Planetary Glaciovolcanism Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, EP, NH, P		Climate
S23D	○	Gutenberg Lecture	2:10	3:40		Marriott Marquis	Marquis 6			Extreme Events & Hazards
U24A	○	Highlights from the Fourth National Climate Assessment: Impacts, Risks, and Adaptation in the United States	4:00	6:00		Convention Center	202A	A, GC, GH, SI		Climate
A24K	●	Assessment, Enhancement, and Integration of Arctic Observing Systems II eLightning	4:00	6:00		Convention Center	eLightning Theater I	B, C, OS		Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
A24A	○	A Spectral View of Aerosols, Clouds, and Earth's Energy Budget: From Model Evaluation to Process Studies and Planning Climate Change Observations II	4:00	6:00		Convention Center	150B			Climate
A24B	○	Calibration and Validation of Passive Satellite Earth Observation Systems II	4:00	6:00		Convention Center	151B	H, IN	AMS, EGU	Data & Emerging Technologies
A24C	○	Climate Sensitivity and Feedbacks: Advances and New Paradigms II	4:00	6:00		Convention Center	146B	GC		Climate
A24D	○	Dust in a Changing Climate: From Small-Scale Insights to Large-Scale Understanding II	4:00	6:00		Convention Center	151A	B, EP, GC, GH		Climate
A24E	○	Extreme Wildfires and Smoke Plumes: Past, Present, and Future II	4:00	6:00		Convention Center	144A-C			Extreme Events & Hazards
A24F	○	Local Processes and Global Impact of the Indo-Pacific Maritime Continent I	4:00	6:00		Convention Center	143A-C	OS		Climate
A24G	○	Microphysical and Macrophysical Properties and Processes of Ice and Mixed-Phase Clouds: Linking in Situ, Remote Sensing Observations and Multiscale Models II	4:00	6:00		Convention Center	152A	GC		Climate
A24H	○	PANEL DISCUSSIONS: (A) Clouds in Tropics: Stochasticity and Organization, Observation, and Simulation; and (B) Frontier Sciences and Technologies at Ground-Based Neutral Atmosphere Observatories I	4:00	6:00		Convention Center	156	SA		Climate
A24I	○	Regional Climate Modeling I	4:00	6:00		Convention Center	146C	GC, H		Climate
A24J	○	Toward Reducing Systematic Errors in Weather and Climate Models: Evaluation, Understanding, and Improvement II	4:00	6:00		Convention Center	152B	GC		
AE24A	○	Energetic Radiation from Lightning and Thunderstorms I	4:00	6:00		Convention Center	201			
B24A	○	Beyond Ecosystem Boundaries: Integrating Terrestrial and Aquatic Processes to Advance Catchment Biogeoscience II	4:00	6:00		Convention Center	150A			
B24B	○	Forest Response to Extreme Events Using Remote Sensing I	4:00	6:00		Convention Center	147B	GC		Extreme Events & Hazards
B24C	○	Global and Regional Nitrous Oxide Budget: Data, Models, and Uncertainty II	4:00	6:00		Convention Center	154AB	A, GC		Climate
B24D	○	Smart Farming Enabled by Remotely Sensed Big Data II	4:00	6:00		Convention Center	149AB	EP, IN		Data & Emerging Technologies
C24A	○	One Hundred Years of Cryosphere I	4:00	6:00		Convention Center	Salon H			Centennial
DI24B	●	Advances in Computational Geosciences II eLightning	4:00	6:00		Convention Center	eLightning Theater II	C, GP, S		
DI24A	○	Petrological and Thermal Structure of the Mantle from the Transition Zone to the CMB: Causes and Consequences of Phase Transitions I	4:00	6:00		Marriott Marquis	Archives	MR, S, T, V		Earth Processes
ED24A	○	Pathways to Bridge K-12 and Postsecondary II	4:00	6:00		Marriott Marquis	Marquis 7-8			Science & Society
EP24A	○	Advancement in the Measurement and Understanding of Sediment Transport and Bed Form Dynamics in Sand Bed Rivers I	4:00	6:00		Convention Center	145B	H, P		Earth Processes
EP24B	○	Landslides and Landscape Evolution: Mechanisms and Feedbacks III	4:00	6:00		Convention Center	147A	H, NH		Earth Processes
G24A	○	The Bowie Lecture	4:00	5:00		Marriott Marquis	Marquis 6			Climate
GC24D	●	How Will Transdisciplinary Water Research Help Achieve the Sustainable Development Goals? I eLightning	4:00	6:00		Convention Center	eLightning Theater II	GH, H, SI		Science & Society
GC24A	○	Evaluating the Feasibility and Consequences of Solar Geoengineering I	4:00	6:00		Convention Center	Salon B	PA, SI		Climate
GC24B	○	Multisectoral Modeling and Management of Climate Change Impacts I	4:00	6:00		Convention Center	Salon A			Climate
GC24C	○	Taking the Temperature of the Earth: Challenges, Trends, and Applications Across All Earth Surface Domains I	4:00	6:00		Convention Center	Salon C			
GH24A	○	Environment, Health, and Infectious Disease: The Rapidly Changing Landscape of Geohealth I	4:00	6:00		Marriott Marquis	Independence F-H	ED, GC, SI		
H24A	○	The Walter B. Langbein Lecture	4:00	6:00		Marriott Marquis	Marquis 5			
IN24A	○	Climate Informatics: Methods and Applications I	4:00	6:00		Convention Center	145A			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
IN24B	●	Toward Networks of Trusted Data Repositories in the Earth and Space Sciences I	4:00	6:00		Convention Center	209A-C			Data & Emerging Technologies
MR24A	●	An Integrated Approach for Observations, Experiments, and Models of Earth Deformation (PPEM) II	4:00	6:00		Marriott Marquis	Capitol/Congress	T		
NG24A	●	Geophysical Fluid Dynamics I	4:00	6:00		Marriott Marquis	Marquis 12-13	A, OS, SH, SM		Earth Processes
NH24A	●	Integrated Approach for Earth, Ocean, Atmosphere, and Ionosphere Monitoring and Early Warning of Natural Hazards	4:00	6:00		Marriott Marquis	Marquis 9-10	AE, G, S, SA		Extreme Events & Hazards
OS24A	●	Biogeochemical Cycling in Estuaries, Coastal Waters, and Their Watersheds: Natural Variability, Response to Land Use and Climate Change, and Management Implications III	4:00	6:00		Convention Center	103AB	B, GC, H		
OS24B	●	Global Developments in Seafloor Mapping: Gaining a Greater Insight into Earth Systems II	4:00	6:00		Convention Center	102AB	IN		
OS24C	●	Seafloor Hydrocarbon Seepage and Venting: The Contributions and Impacts to the Hydrosphere, Atmosphere, and Seep Habitat Biosphere I	4:00	6:00		Convention Center	101			
P24A	●	Ceres and Vesta: Understanding the Protoplanets of the Asteroid Belt I	4:00	6:00		Convention Center	207B			Planetary Discovery
P24B	●	Results from the Investigation of Jupiter's Atmosphere by Juno and a Supporting Campaign of Earth-Based Observations I	4:00	6:00		Convention Center	207A	A		Planetary Discovery
P24C	●	Ultraviolet Observing of Solar System Targets II	4:00	6:00		Convention Center	204A-C			
P24D	●	"The New Mars Underground": Science and Exploration of a New Deep Frontier III	4:00	6:00		Convention Center	206	B, C, H, NS		Planetary Discovery
PA24A	●	Implementing Science Tools for Cities and Climate I	4:00	6:00		Marriott Marquis	Marquis 3-4	GC, NH		Science & Society
PA24B	●	Progress Toward Enhancing National Preparedness for Space Weather I	4:00	6:00		Marriott Marquis	Marquis 1-2	NH, SI		Extreme Events & Hazards
PP24A	●	Advances in Paleoecology and Paleoclimate with Emphasis on Contextualizing Human Evolutionary History I	4:00	6:00		Convention Center	146A			Climate
PP24B	●	Biomarkers from Source to Sink: Proxy Development, Mechanistic Theory, and Applications II	4:00	6:00		Convention Center	Salon G	B		Climate
PP24C	●	Understanding the Indian-Asian-Australian Monsoon: Evolution and Links to Tectonic, Climatic, and Biogeochemical Cycles III	4:00	6:00		Convention Center	Salon I			Climate
S24A	●	Frontiers in Theoretical and Computational S I	4:00	6:00		Marriott Marquis	Marquis A-C	DI, T		
S24B	●	Heterogeneity and Scaling Relations Impacting the Geomechanical Behavior of Fault Zones I	4:00	6:00		Marriott Marquis	Independence E			
S24C	●	New Frontiers in Global Seismic Monitoring and Earthquake Research I	4:00	6:00		Marriott Marquis	Independence D	G, NH, T		Extreme Events & Hazards
SM24A	●	The 2018 Van Allen Lecture	4:00	5:00		Convention Center	202B	P, SA, SH		Science & Society
T24A	●	Deep Structures of the Eastern Tethyan Orogenic Belt and Related Geodynamics Processes I	4:00	6:00		Marriott Marquis	Liberty M			
T24B	●	Synthesis: Knowns and Unknowns of the Cascadia Subduction Zone I	4:00	6:00		Marriott Marquis	Liberty L	G, NH, S, V		Extreme Events & Hazards
T24C	●	The Giants of Tectonophysics	4:00	6:00		Marriott Marquis	Liberty N-P			
V24A	●	Magmatic Systems and Their Interactions With Tectonic Processes in Rifts, Arcs, Ridges, and Volcanic Fields II	4:00	6:00		Marriott Marquis	Liberty I-K	G, NH, T		Earth Processes
GP24A	●	Bullard Lecture of the GPE Section	5:00	6:00		Marriott Marquis	Marquis 6			
SH24A	●	The 2018 Parker Solar/Heliophysics Lecture	5:00	6:00		Convention Center	202B	SA, SM		Science & Society

Wednesday, 12 December | A.M.

U31A	●	How Science Influences Action: Responding to Climate Change in Developing Countries	8:00	10:00		Convention Center	202A	GC, SI		Climate
A31A	●	Atmospheric Trace Species in the Stratosphere: Distribution, Trends, Variability, and Processes Related to Stratospheric Ozone and Climate I	8:00	10:00		Convention Center	151B	GC		Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
A31B	○	Improving the Science of Emissions Through Inventories, Observations, and Models I	8:00	10:00		Convention Center	151A	B, GC		Science & Society
A31C	○	New Atmospheric Sciences Fellows Session I	8:00	10:00		Convention Center	152A			
A31D	○	Regional Climate Modeling II	8:00	10:00		Convention Center	152B	GC, H		Climate
A31E	○	Subseasonal to Seasonal Prediction of Weather and Climate I	8:00	10:00		Convention Center	143A-C			Climate
A31F	○	Urban and Regional Air Quality: Emissions, Land Surface Forcing, and Meteorological Impacts I	8:00	10:00		Convention Center	144A-C	B, GC, H		
A31G	●	Advances in Atmospheric Remote Sensing Techniques and Theories III Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A31H	●	Advances in Radar Remote Sensing of Clouds and Precipitation: Microphysical Retrievals, Estimation, and Hydrometeorological Applications II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, H, NH	AMS	Extreme Events & Hazards
A31I	●	Atmospheric Trace Species Profiles from Long-Term and Campaign Sampling: Observations from Ground, Balloons, and Aircraft I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
A31J	●	Boundary Layer Clouds and Atmosphere, Biosphere, Land, and Ocean Interactions I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, H, OS		
A31K	●	Boundary Layer Processes and Turbulence I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, H		
A31L	●	Calibration and Validation of Passive Satellite Earth Observation Systems III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, IN	AMS, EGU	Data & Emerging Technologies
A31M	●	Emissions of Atmospheric Pollutants from Oil, Gas, and Coal Operations II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Natural Resources
A31N	●	Extratropical Large-Scale Atmospheric Circulation Variability II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NG		Climate
A31O	●	Flight Research Techniques That Bring Results Using NASA Armstrong Airborne Science ER-2, G3, and DC-8 Aircraft I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	AE, GC, NH, S		Extreme Events & Hazards
A31P	●	Lidar Investigations of Greenhouse Gases, Aerosols, and Clouds I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A31Q	●	Marine Atmospheric Boundary Layer Processes Affecting Electromagnetic and Electro-optical Wave Propagation I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A31R	●	Tethered Aerosystems: Emerging Tools for a Variety of Observations I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, GC, NH		
AE31A	○	Energetic Radiation from Lightning and Thunderstorms II	8:00	10:00		Convention Center	201			
B31A	○	Advances in Uncertainty Assessment and Reduction for Terrestrial Carbon Cycle Diagnosis and Prediction I	8:00	10:00		Convention Center	150B			
B31B	○	Monitoring Forest Structure, Productivity, and Change at the Intersection of Forest Modeling, Remote Sensing, and Field Measurements I	8:00	10:00		Convention Center	147B			Data & Emerging Technologies
B31C	○	Resilient Agroecosystems I	8:00	10:00		Convention Center	149AB			Climate
B31D	○	Soil Carbon Change and Persistence in the Anthropocene I	8:00	10:00		Convention Center	150A	GC		Soils
B31E	●	Vulnerability of Permafrost Carbon to Climate Change II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, GC		Soils
B31F	●	The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change VI Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
B31G	●	Biogeochemical Cycling Across Redox Regimes in Arctic and Subarctic Ecosystems Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
B31H	●	Interactions Between Hydrological and Biogeochemical Change in Permafrost Environments II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, H		Soils
B31I	●	Advancements in Global Land Cover and Land Use Monitoring II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H		
B31J	●	Advances in the Remote Sensing of the Terrestrial Carbon Cycle II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		
B31K	●	Forest Response to Extreme Events Using Remote Sensing II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Extreme Events & Hazards
B31L	●	Landsat: Past, Present, and Future Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, IN, SI		Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
B31M	●	Satellite Land Surface Products at Medium/High Resolution: Algorithms, Validation, and Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
B31N	●	Sun-Induced Chlorophyll Fluorescence as a Proxy of Photosynthesis: Measurements, Modeling, and Applications from Field, Airborne, and Satellite Platforms Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, H		Data & Emerging Technologies
C31A	○	Dust, Black Carbon, and Other Aerosols in the Cryosphere I	8:00	10:00		Convention Center	Salon G	A, GC, H		Soils
C31B	○	Glacier Monitoring from in Situ and Remotely Sensed Observations I	8:00	10:00		Convention Center	Salon H			Climate
C31C	●	Modeling of the Cryosphere: Glaciers and Ice Sheets Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
C31D	●	Seasonal Sea Ice and Snow Under Change: Using in Situ Measurements, Remote Sensing, and Modeling to Understand Processes and Properties Across Scales Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
C31E	●	Remote Sensing of Sea Ice Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, GC, OS		Climate
DI31A	○	Forms and Fluxes of Deep Carbon in Earth I	8:00	10:00		Marriott Marquis	Archives	V		
DI31B	●	Advances in Computational Geosciences III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, GP, S		
DI31C	●	Petrological and Thermal Structure of the Mantle from the Transition Zone to the CMB: Causes and Consequences of Phase Transitions II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, S, T, V		Earth Processes
ED31A	○	Amazing Technologies and Capabilities That Contribute to STEAM I	8:00	10:00		Marriott Marquis	Marquis 7-8	IN, P, PA		Data & Emerging Technologies
ED31B	○	Graduate Student Experiences, Preparation, and Pathways into the Workforce I	8:00	10:00		Marriott Marquis	Marquis 1-2	PA, SI		Science & Society
ED31C	●	Climate Literacy: Creating Inclusive Pathways Through Informal Science Learning and Higher Education Toward a Climate-Literate Society and Workforce I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, C, GC, SI		Climate
ED31D	●	Evaluation Stands for Evidence-Based Claims About Education, Outreach, and Communication I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
ED31E	●	Supporting K-12 Geoscience and Climate Education Through Teacher Professional Development I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
EP31A	○	Fluvial Morphodynamics, Channel Patterns, and Beyond I	8:00	10:00		Convention Center	147A			Earth Processes
EP31B	○	Recent Advances in Fire Modeling I	8:00	10:00		Convention Center	145B	A, GC		Earth Processes
EP31C	●	Advancement in the Measurement and Understanding of Sediment Transport and Bed Form Dynamics in Sand Bed Rivers Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, P		Earth Processes
EP31D	●	River Deltas: Sediment Accumulators and Biogeochemical Reactors Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
EP31E	●	The Interplay of Cohesive Sediment Dynamics and Hydrodynamics in the Coastal Riverine Zone to the Outer Reaches of the Continental Shelf Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
G31A	○	Satellite Geodesy for Climate and Atmospheric Research I	8:00	10:00		Marriott Marquis	Marquis A-C	C, GC, H, OS		Climate
G31B	●	The Global Geodetic Observing System: Essential Geodesy for Earth and Planetary Rotation I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, GP, P		
GC31A	○	Climate-Hydrology-Human Interactions and Their Implications on Hydroclimate Extremes in a Changing Environment I	8:00	10:00		Convention Center	Salon B	A, H, NH		Extreme Events & Hazards
GC31B	○	Permafrost Dynamics, Biophysical and Socioeconomic Linkages: Connecting Science to Policy I	8:00	10:00		Convention Center	Salon A	B, C, NH, SI		Science & Society
GC31C	○	The Rate of Global Warming on Decadal to Multidecadal Timescales: Hiatus Events, Surge Events, and Climate Sensitivity I	8:00	10:00		Convention Center	Salon C	A, OS		Climate
GC31D	●	Coupled Human-Natural Systems and Global Environmental Change: Innovative Interdisciplinary Approaches Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
GC31E	●	Multisectoral Modeling and Management of Climate Change Impacts Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GC31F	●	Estimating the Economic and Physical Impacts of Climate Change Through Econometrics and Other Methods in Support of Policy Analysis Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
GC31G	●	The Human Process and Wicked Problems in Earth's Future Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
GC31H	●	Evaluating the Feasibility and Consequences of Solar Geoengineering Posters	8:00	12:20		Convention Center	Hall A-C (PH)	PA, SI		Climate
GC31I	●	High-Resolution Solar Energy Monitoring and Forecast from Satellite Observations and Model Forecasts II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN		Science & Society
GC31J	●	Taking the Temperature of the Earth: Challenges, Trends, and Applications Across All Earth Surface Domains Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
GC31K	●	Use of Earth Observations in Mitigating Major Environmental Challenges in South and Southeast Asia Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
GH31A	○	Earth System Interactions and Implications for Geohealth I	8:00	10:00		Marriott Marquis	Independence F-H			Extreme Events & Hazards
GH31B	●	Climate Link to Infectious Diseases: Toward Development of Successful Early Warning Systems II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		Science & Society
GH31C	●	Environment, Health, and Infectious Disease: The Rapidly Changing Landscape of Geohealth Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, GC, SI		
GP31A	●	Motion Between Hot Spots and True Polar Wander II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, G		Earth Processes
GP31B	●	Marine Magnetism, 50 Years After Plate Tectonics Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
GP31C	●	Frontiers in Electromagnetic Methods II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Natural Resources
GP31D	●	Understanding Active Earth Systems Through Combined MT/EM and Seismic Data Sets II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NS, S, T, V		Earth Processes
H31A	○	Advances in Ensemble Flood Forecasting, Flood Estimation, and Risk Analysis I	8:00	10:00		Convention Center	156			Extreme Events & Hazards
H31B	○	Advances in Remote Sensing Hydrology I	8:00	10:00		Convention Center	146C			
H31C	○	Conventional and Enhanced Geothermal Systems: Characterization, Integration, Stimulation, Simulation, and Induced Seismicity I	8:00	10:00		Convention Center	145A	NG, NS, S, V		Natural Resources
H31D	○	Groundwater-Surface Water Interactions: Identifying and Integrating Physical, Biological, and Chemical Patterns and Processes Across Systems and Scales I	8:00	10:00		Convention Center	146B	B		Earth Processes
H31E	○	Mechanisms, Monitoring, Modeling, and Environmental Impacts of Land Subsidence due to Fluid Extraction I	8:00	10:00		Convention Center	146A	G, NH		Extreme Events & Hazards
H31F	○	Modeling Hydrological Processes and Changes Under a Changing Environment I	8:00	10:00		Convention Center	154AB			Earth Processes
H31G	●	Applications in Snow Hydrology: Linking Seasonal Snow to Natural Processes and Society II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C		Climate
H31H	●	Applications of Machine Learning and Data Cubes in Remote Sensing III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, GC		Data & Emerging Technologies
H31I	●	Hydrologic Data Assimilation II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
H31J	●	Innovations in Subsurface Contaminant Transport and Remediation IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		
H31K	●	Multisource Remote Sensing of Rivers, Lakes, Reservoirs, and Wetlands IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H31L	●	Runoff Generation Processes: Integrating Observations and Processes over Variable Scales II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H31M	●	Solute and Sediment Delivery from Headwaters to the Sea: Impacts of Land Use and Aquatic Connectivity II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H31N	●	Water and Society: The Future of Coupled Water-Energy Systems Confronting Global Change I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH, PA, SI		Climate
IN31B	●	JSON-Based Structured Data for Discovery, Access, and Usability: Leveraging Schema.org I eLightning	8:00	10:00		Convention Center	eLightning Theater II			Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
IN31A	○	Innovative Data-Driven Platforms and VREs for Complex Earth, Space, and Environmental Sciences Applications I	8:00	10:00		Convention Center	209A-C			Data & Emerging Technologies
IN31C	●	Climate Informatics: Methods and Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
IN31D	●	Toward Networks of Trusted Data Repositories in the Earth and Space Sciences Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
MR31A	○	Elastic Properties of Earth Materials and Their Application in Seismology and Geodynamics I	8:00	10:00		Marriott Marquis	Capitol/Congress	DI, P, S, T	MSA	Earth Processes
MR31B	●	An Integrated Approach for Observations, Experiments, and Models of Earth Deformation (PPEM) III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	T		
MR31C	●	Experimental Approaches to Deformation and Flow in Nanoporous Mudrocks I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, T		
NG31A	●	Geophysical Fluid Dynamics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, OS, SH, SM		Centennial
NH31A	○	Interdisciplinary Tsunami Science I	8:00	10:00		Marriott Marquis	Marquis 9-10	OS, S		Extreme Events & Hazards
NH31B	●	Further Research into the Cause and Impacts of the 2017 Hurricanes, with Applications of Flood Warning and Inundation Mapping During the Storms Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, H, IN		Extreme Events & Hazards
NH31C	●	Predicting Extreme Events to Build Resilience to Natural Hazards Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, H, OS, SH		Extreme Events & Hazards
NH31D	●	Remote Sensing: Monitoring, Prediction, and Hazard Mitigation of Hydroclimatic Extreme Events Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NH31E	●	Using Earth Observations and Imagery Analysis for Risk and Resilience Assessment, Risk Communication, and Monitor Response and Recovery Efforts Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NS31A	○	Near-Surface Geophysics for Anthropogenic Targets I	8:00	10:00		Marriott Marquis	Marquis 12-13	PA,S		Science & Society
NS31B	●	Full-Waveform Inversion, Modeling, and Imaging in Seismology and Near-Surface Geophysics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, S, T		
NS31C	●	Geophysical Methods for Groundwater Evaluation and Management III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GH, H		
OS31A	○	Air-Sea Interaction from Tropics to Extratropics: Ocean Mesoscales, Teleconnections, and Climate Predictions I	8:00	10:00		Convention Center	103AB	A		
OS31B	○	Integrated Observations and Modeling of Surface Currents, Waves, and Winds I	8:00	10:00		Convention Center	102AB			Climate
OS31C	○	Understanding Changing Ocean Biogeochemistry I	8:00	10:00		Convention Center	101	B, GC, PP		Climate
OS31D	●	Nearshore Physical Processes V Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
OS31E	●	Integrated Observations and Modeling of Surface Currents, Waves, and Winds Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
OS31F	●	Modeling of Gas Hydrate-Related Systems Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, H		
OS31G	●	Global Developments in Seafloor Mapping: Gaining a Greater Insight into Earth Systems III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN		
OS31H	●	New Frontiers in the Southern Ocean's Role in Climate: Recent Developments in Physical and Biogeochemical Observations and Modeling Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
P31A	○	Processes in the Present-Day Atmosphere of Mars I	8:00	10:00		Convention Center	206	A, SA		Planetary Discovery
P31B	○	The Uranus and Neptune Systems and Their Relation to Other Planets I	8:00	10:00		Convention Center	207A	SM		Planetary Discovery
P31C	●	Planetary Habitability and the Main Control Factors I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GP, SA, SM		Planetary Discovery
P31D	●	Exogeoscience and the Habitability of Super-Earths I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, EP, V, GP		Planetary Discovery
P31E	●	Comparative Planetology and Biosignatures from the Solar System to the Exoplanets I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, EP, SA, SH		Planetary Discovery
P31F	●	Diagenesis on Mars and Clues from Terrestrial Systems I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, V		Planetary Discovery
P31G	●	The Significance of Late Accretion for Composition and Early Evolution of the Terrestrial Planets I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, MR, V		Planetary Discovery

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
P31H	●	The Use of Analog Environments in Preparing for the Exploration and Characterization of Planetary Surfaces I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
P31I	●	Using Topography to Investigate the Evolution of Solar System Bodies II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
PA31A	○	Engaged Scientists: Personal and Professional Climate Action by Climate Change Researchers I	8:00	10:00		Marriott Marquis	Marquis 3-4			Science & Society
PA31B	●	Communicating Weather and Climate Information for Decision-Making in Resource-Constrained Environments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
PA31C	●	The Ethics of Providing Climate Information in the Developing World Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
PA31D	●	The Fourth National Climate Assessment: Highlighting Impacts, Risks, and Responses Across Sectors and Regions of the United States Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, ED, GC, SI		Climate
PP31A	○	Advanced Understanding of Tropical Hydroclimate Changes During the Pleistocene and Holocene I	8:00	10:00		Convention Center	Salon I			
PP31B	●	Advances in Paleoecology and Paleoclimate with Emphasis on Contextualizing Human Evolutionary History Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
PP31C	●	High-Resolution Paleoclimate and Paleoenvironmental Records from Africa: Providing Context for Human Evolution and Dispersal from the Pliocene to the Present Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
PP31D	●	Biomarkers from Source to Sink: Proxy Development, Mechanistic Theory, and Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Climate
PP31E	●	Alkenones in Marine, Estuarine, and Lacustrine Environments: New Biogeochemical Insights and Paleoclimatic Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Climate
PP31F	●	The Big 4: Records of Worldwide Stage 4 Glacial, Climatic, and Environmental Changes Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
S31A	○	Induced Seismicity in the United States and Canada I	8:00	10:00		Marriott Marquis	Independence E	H, NG, T		Science & Society
S31B	○	Site Characterization Using Single-Station and Array Methods I	8:00	10:00		Marriott Marquis	Independence D	NS		Soils
S31C	●	Emerging Science from the EarthScope Transportable Array in Alaska and Canada Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
S31D	●	Frontiers in Theoretical and Computational Seismology Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, T		
S31E	●	Frontiers of Uncertainty Quantification in Geoscientific Inversion Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
S31F	●	Next-Generation Seismic Source Studies Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SA31A	○	Cross-Scale Coupling and Energy Transfer in the Magnetosphere-Ionosphere-Thermosphere System I	8:00	10:00		Convention Center	202B	SM		
SA31B	●	Advances in Equatorial Thermosphere and Ionosphere Studies Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SA31C	●	The Upper Mesosphere and Lower Thermosphere: Observations, Modeling, and Implications for Future Directions Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A		
SH31A	○	Reconnection and Turbulence: Two Fundamental Processes Intertwined I	8:00	10:00		Convention Center	207B	SM		
SH31B	●	Reconnection and Turbulence: Two Fundamental Processes Intertwined Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SM		
SH31C	●	Collisionless Shock Waves in Astrophysical Plasmas Posters	8:00	12:20		Convention Center	Hall A-C (PH)	P, SM		
SM31B	●	Interactive Visualizations of Magnetic Reconnection: Magnetospheric Multiscale (MMS) Observations and Simulations eLightning	8:00	10:00		Convention Center	eLightning Theater I			
SM31A	○	Our Evolving Understanding of Auroral Processes and Magnetosphere Dynamics at Jupiter Through Juno and Earth-Based Observations I	8:00	10:00		Convention Center	204A-C	P		
SM31C	●	Challenges in Extreme Space Weather Research: Science, Applications, and Policies for Rare Events I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH, SA, SH		Extreme Events & Hazards
SM31D	●	Machine Learning in Space Weather I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SA, SH		Data & Emerging Technologies

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
SM31E	●	Quantifying Uncertainty in Space Weather Modeling and Forecasting I Posters	8:00	12:20	Convention Center	Hall A-C (PH)			
T31A	○	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia III	8:00	10:00	Marriott Marquis	Liberty N-P	EP, NH, S		Extreme Events & Hazards
T31B	○	Crystallographic Fabrics and Microstructures: Geodynamic Marker of Earth's History and Today's Internal Structure I	8:00	10:00	Marriott Marquis	Liberty M			Earth Processes
T31C	●	Deep Structure and Geodynamics of the Continental Convergence Zones III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	S, V		Earth Processes
T31D	●	East Asia Tectonic and Geodynamic History Since the Mesozoic III Posters	8:00	12:20	Convention Center	Hall A-C (PH)	DI, S, V		
T31E	●	Geospatial Artificial Intelligence: Machine Learning in Earth Sciences Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, IN, OS		Data & Emerging Technologies
T31F	●	Numerical and Laboratory Analogue Models of Dykes, Sills, and Hydraulic Fractures Posters	8:00	12:20	Convention Center	Hall A-C (PH)	V		Earth Processes
T31G	●	The Varied Roles of Aqueous Fluids near the Subduction Interface II Posters	8:00	12:20	Convention Center	Hall A-C (PH)	MR, S, V		Earth Processes
T31H	●	Volatile Cycling in Subduction Zones: Fluid Inputs, Pathways and Outputs, and Their Impact on Geodynamic Processes and Natural Hazards II Posters	8:00	12:20	Convention Center	Hall A-C (PH)			Earth Processes
V31A	○	Chemistry, Mechanics, Geophysics, and Timescales of Magmatic Processes I	8:00	10:00	Marriott Marquis	Liberty I-K	EP, G, NH, S		Earth Processes
V31B	○	Triple Isotopes of Oxygen and Sulfur in Terrestrial Systems I	8:00	10:00	Marriott Marquis	Liberty L	EP, PP		Earth Processes
V31C	○	The 2018 Eruptions of Kīlauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galápagos II	8:00	10:00	Marriott Marquis	Marquis 6	GH, IN, S, T		Extreme Events & Hazards
V31D	●	A Multidisciplinary Approach to Investigating the Formation of Earth and Its Chemically Distinct Reservoirs Posters	8:00	12:20	Convention Center	Hall A-C (PH)	DI, MR, P	GS, MSA	Earth Processes
V31E	●	Advances in Metamorphic Processes: Mechanisms, Conditions, Rates, and Drivers Posters	8:00	12:20	Convention Center	Hall A-C (PH)	T		Earth Processes
V31F	●	Advancing Earth Science Through Geologic Mapping Posters	8:00	12:20	Convention Center	Hall A-C (PH)	EP, NH		Earth Processes
V31G	●	Geosphere to Anthroposphere: An Integrated Approach to Securing the Mineral Resources That Underpin Modern Society Posters	8:00	12:20	Convention Center	Hall A-C (PH)	SI		Natural Resources
V31H	●	Magmatic Systems and Their Interactions with Tectonic Processes in Rifts, Arcs, Ridges, and Volcanic Fields Posters	8:00	12:20	Convention Center	Hall A-C (PH)	G, NH, T		Earth Processes
V31I	●	Sourcing and Geochemistry of Nonhydrocarbon Gas Accumulations Posters	8:00	12:20	Convention Center	Hall A-C (PH)	GC, H	GS, MSA	Natural Resources
U32A	○	Foundation to Frontiers in Earth and Planetary Processes Since 1877: Geology of the Henry Mountains	10:20	12:20	Convention Center	202A	EP, H, P		Centennial
A32A	○	Atmospheric Trace Species in the Stratosphere: Distribution, Trends, Variability, and Processes Related to Stratospheric Ozone and Climate II	10:20	12:20	Convention Center	151B	GC		Climate
A32B	○	Improving the Science of Emissions Through Inventories, Observations, and Models II	10:20	12:20	Convention Center	151A	B, GC		Science & Society
A32C	○	Mesoscale and Severe Convective Storms: Understanding, Model Development, and Evaluation II	10:20	12:20	Convention Center	150B	NH		Extreme Events & Hazards
A32D	○	Subseasonal to Seasonal Prediction of Weather and Climate II	10:20	12:20	Convention Center	143A-C			Climate
A32E	○	Urban and Regional Air Quality: Emissions, Land Surface Forcing, and Meteorological Impacts II	10:20	12:20	Convention Center	144A-C	B, GC, H		
A32F	○	Weather and Climate Modeling Across Scales: From Global to Convection-Permitting II	10:20	12:20	Convention Center	152B	GC, H		
A33M	○	New Atmospheric Sciences Fellows Session II	10:20	12:20	Convention Center	152A			
B32A	○	Impacts of Winter Climate Change on Hydrobiogeochemical Dynamics of Terrestrial and Aquatic Systems During the Winter and Shoulder Seasons I	10:20	12:20	Convention Center	149AB	C, H		Natural Resources
B32B	○	Novel Methods of Connecting Ecosystem Structure to Function with Remote Sensing I	10:20	12:20	Convention Center	147B	GC		Data & Emerging Technologies
B32C	○	Soil Carbon Change and Persistence in the Anthropocene II	10:20	12:20	Convention Center	150A	GC		Soils
C32A	○	Glacier Monitoring from in Situ and Remotely Sensed Observations II	10:20	12:20	Convention Center	Salon H			Climate

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
C32B	○	Integrating Observations and Models to Better Understand a Changing Arctic System I	10:20	12:20	Convention Center	Salon G	A, GC, OS		Climate
C32C	○	Remote Sensing of Sea Ice I	10:20	12:20	Convention Center	Salon I	A, B, GC, OS		Climate
DI32A	○	The Archean Earth and Its Venusian Analogue I	10:20	12:20	Marriott Marquis	Archives	P, T		Planetary Discovery
ED 32A	○	Amazing Technologies and Capabilities That Contribute to STEAM II	10:20	12:20	Marriott Marquis	Marquis 7-8	IN, P, PA		Data & Emerging Technologies
EP32A	○	Fluvial Morphodynamics, Channel Patterns, and Beyond II	10:20	12:20	Convention Center	147A			Earth Processes
EP32B	○	Time, Space, and Hydrologic Influences on Sediment and Nutrient Dynamics: From Sources to Delivery I	10:20	12:20	Convention Center	145B	GC, H		Soils
G32A	○	Recent Advances in SAR and InSAR Processing, Analysis, and Cloud Computing I	10:20	12:20	Marriott Marquis	Independence D	IN		Data & Emerging Technologies
GC32A	○	Environmental, Socioeconomic, and Climatic Changes in Northern Eurasia I	10:20	12:20	Convention Center	Salon A	A, B, NH, SI		
GC32B	○	Large Ensemble Climate Model Simulations: Exploring Natural Variability, Climate Change Signal, Extremes, and Compound Events at Various Spatiotemporal Scales I	10:20	12:20	Convention Center	Salon C			Climate
GC32C	○	Regional to Local Energy-Water Dynamics in a Changing and Uncertain Future I	10:20	12:20	Convention Center	Salon B	H, NH, SI		Climate
GH32A	○	Geochemistry and Health: Involving Communities in Measuring Their Environment I	10:20	12:20	Marriott Marquis	Independence F-H	ED, GC, NH, SI		Science & Society
GP32A	○	Reconstructing the Paleomagnetic Field: From Data to Models I	10:20	12:20	Marriott Marquis	Marquis A-C			Earth Processes
H32A	○	Advances in Ensemble Flood Forecasting, Flood Estimation, and Risk Analysis II	10:20	12:20	Convention Center	156			Extreme Events & Hazards
H32B	○	Advances in Remote Sensing Hydrology II	10:20	12:20	Convention Center	146C			
H32C	○	Developments in Geothermal Energy I	10:20	12:20	Convention Center	145A	MR, T		
H32D	○	Groundwater Sustainability Studies: Integrating Monitoring, Modeling, and Policy I	10:20	12:20	Convention Center	146A			Science & Society
H32E	○	Groundwater-Surface Water Interactions: Identifying and Integrating Physical, Biological, and Chemical Patterns and Processes Across Systems and Scales II	10:20	12:20	Convention Center	146B	B		Earth Processes
H32F	○	Modeling Hydrological Processes and Changes Under a Changing Environment II	10:20	12:20	Convention Center	154AB			Earth Processes
IN32A	○	Leptoukh Lecture for the Earth and Space Science Informatics Section	10:20	11:20	Marriott Marquis	Marquis 5			Data & Emerging Technologies
MR32A	○	Perspectives on the Planetary Interior at Multiple Scales: Reconciling Experiments, Simulations, and Observations	10:20	12:20	Marriott Marquis	Capitol/Congress	DI	MSA	
NG32A	○	Nonlinear Statistical, Mathematical, and Computational Physics in Complex System Science: Theoretical Advances and Geophysical Applications I	10:20	12:20	Marriott Marquis	Marquis 12-13	A, DI, H, IN		Earth Processes
NH32B	●	Improving Earthquake Hazard and Loss Assessments by Combining Modeled, Remotely Sensed, Crowdsourced, and Ground-Truth Data eLightning	10:20	12:20	Convention Center	eLightning Theater I	G, S, SI		Extreme Events & Hazards
NH32A	○	Interdisciplinary Tsunami Science II	10:20	12:20	Marriott Marquis	Marquis 9-10	OS, S		Extreme Events & Hazards
OS32A	○	Air-Sea Interaction from Tropics to Extratropics: Ocean Mesoscales, Teleconnections, and Climate Predictions II	10:20	12:20	Convention Center	103AB	A		
OS32B	○	Integrated Observations and Modeling of Surface Currents, Waves, and Winds II	10:20	12:20	Convention Center	102AB			Climate
OS32C	○	Rachel Carson Lecture	10:20	11:20	Marriott Marquis	Marquis 6			Climate
OS32D	○	Understanding Changing Ocean Biogeochemistry II	10:20	12:20	Convention Center	101	B, GC, PP		Climate
P32A	○	Cassini's Legacy: Atmospheric, Magnetospheric, and Heliospheric Discovery I	10:20	12:20	Convention Center	207A			Planetary Discovery
P32B	○	Processes in the Present-Day Atmosphere of Mars II	10:20	12:20	Convention Center	206	A, SA		Planetary Discovery
PA32C	●	Data Policy: Much More Than Just the Data Set eLightning	10:20	12:20	Convention Center	eLightning Theater II	IN, SI		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PA32A	○	New Frontiers in Communicating on Climate Change: Connecting Science, Health, and Journalism on Local Impacts and Solutions I	10:20	12:20		Marriott Marquis	Marquis 3-4	ED, GC, GH		Climate
PA32B	○	The Future of Science Policy: Funding, Freedom of Scientific Expression, and Federal Decision-Making I	10:20	12:20		Marriott Marquis	Marquis 1-2	SI		Science & Society
S32A	○	Induced Seismicity in the United States and Canada II	10:20	12:20		Marriott Marquis	Independence E	H, NG, T		Science & Society
SA32A	○	Cross-Scale Coupling and Energy Transfer in the Magnetosphere-Ionosphere-Thermosphere System II	10:20	12:20		Convention Center	202B	SM		
SH32A	○	Factors That Determine the Properties of Solar Energetic Particle Events I	10:20	12:20		Convention Center	204A-C			
SH32B	○	Solar Radiative Variability: From Minutes to Millennia—The Sun's Influence on the Earth's Space Environment, Atmosphere, and Climate I	10:20	12:20		Convention Center	209A-C			Climate
SH32C	○	The Interstellar Probe Mission: Study Findings and Next Steps I	10:20	12:20		Convention Center	207B			
SM32A	○	Multiscale Investigations of Fundamental Plasma Processes by in Situ Observations and Simulations II	10:20	12:20		Convention Center	201	P, SH		
T32D	●	Fractures In Plutonic Rocks eLightning	10:20	12:20		Convention Center	eLightning Theater I	MR, V		
T32A	○	Active Tectonics, Seismicity, and Surface Processes Interactions in South and East Asia IV	10:20	12:20		Marriott Marquis	Liberty N-P	EP, NH, S		Extreme Events & Hazards
T32B	○	Flow and Fracture: Mixed Brittle-Viscous Behavior Throughout the Lithosphere I	10:20	12:20		Marriott Marquis	Liberty L	MR, NH, S, V		Earth Processes
T32C	○	Shaping Slow and Ultraslow Spreading Seafloor with Faults, Magma, and Fluids I	10:20	12:20		Marriott Marquis	Liberty M	OS, V		Earth Processes
TT32A	TT	Science of a Rapidly Changing Arctic System	10:20	10:50		Marriott Marquis	University of DC/Catholic University	A, C, GC, OS		
V32A	○	Chemistry, Mechanics, Geophysics, and Timescales of Magmatic Processes II	10:20	12:20		Marriott Marquis	Liberty I-K	EP, G, NH, S		Earth Processes
TT32B	TT	Earth in Five Reactions: What Makes Our Planet Unique in the Solar System?	10:50	11:20		Marriott Marquis	University of DC/Catholic University	B, EP, SI, V		
NH32C	○	Gilbert F. White Distinguished Lecture Award	11:20	12:20		Marriott Marquis	Marquis 5			Extreme Events & Hazards
PP32A	○	Emiliani Lecture	11:20	12:20		Marriott Marquis	Marquis 6			
TT32C	TT	It's All Good: The Reciprocity of Diversity in STEM Disciplines	11:20	11:50		Marriott Marquis	University of DC/Catholic University	ED,PA, SI		

Wednesday, 12 December | P.M.

U33C	🗨️	SEXUAL HARASSMENT OF WOMEN: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine: A Panel Discussion on Recommendations from a Consensus Study Report of The National Academies of Sciences, Engineering, and Medicine-with Special emphasis on Earth and Space Science Work Environments	12:30	1:30		Convention Center	Ballroom A-C			
U33A	○	Grand Challenges in Rock and Paleomagnetism	1:40	3:40		Convention Center	202A	GP, MR		Centennial
A33A	○	Atmospheric Trace Species Profiles from Long-Term and Campaign Sampling: Observations from Ground, Balloons, and Aircraft II	1:40	3:40		Convention Center	151B	GC		Climate
A33B	○	Bridging the Gap from Climate to Extreme Weather: Theory, Modeling, and Observations II	1:40	3:40		Convention Center	152B			Extreme Events & Hazards
A33C	○	Emissions of Atmospheric Pollutants from Oil, Gas, and Coal Operations I	1:40	3:40		Convention Center	151A			Natural Resources
A33D	○	High-Resolution Weather and Climate Modeling on Large Supercomputers II	1:40	3:40		Convention Center	152A	GC, OS		Climate
A33E	○	Subseasonal to Seasonal Prediction of Weather and Climate III	1:40	3:40		Convention Center	143A-C			Climate
A33F	○	Urban and Regional Air Quality: Emissions, Land Surface Forcing, and Meteorological Impacts III	1:40	3:40		Convention Center	144A-C	B, GC, H		
A33G	●	Advances in Methods and Technologies for Emissions Monitoring and Exposure Assessment to Hazardous Air Pollutants I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
A33H	●	Advances in Optical Remote Sensing of the Atmosphere and Surface III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Data & Emerging Technologies
A33I	●	Air Pollution, Greenhouse Gases, and Emissions in Asia and Their Interactions with the World II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, SI		Science & Society
A33J	●	Atmospheric Monitoring from Space: The Copernicus S5P and Suomi NPP Constellation I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, NH		Climate
A33K	●	Improving the Science of Emissions Through Inventories, Observations, and Models III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC		Science & Society
A33L	●	Laboratory Studies in Atmospheric Sciences I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
A33N	●	Relating the Internal Variability of Climate Systems and Their Forced Responses I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, OS		Climate
AE33A	●	Energetic Radiation from Lightning and Thunderstorms III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
B33A	○	Natural Wetlands, Inland Waters, and the Global Methane Cycle: Reconciling Top-Down Atmospheric Estimates and Bottom-Up Biogeochemical Estimates of Methane Emissions I	1:40	3:40		Convention Center	150B			Climate
B33B	○	Soil Carbon Change and Persistence in the Anthropocene III	1:40	3:40		Convention Center	150A	GC		Soils
B33C	○	Sun-Induced Chlorophyll Fluorescence as a Proxy of Photosynthesis: Measurements, Modeling, and Applications from Field, Airborne, and Satellite Platforms I	1:40	3:40		Convention Center	147B	GC, H		Data & Emerging Technologies
B33D	○	The Resilience of Wetland Ecosystems to Multiscale Environmental Changes I	1:40	3:40		Convention Center	149AB	H		Extreme Events & Hazards
B33E	●	Resilient Agroecosystems Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
B33F	●	Smart Farming Enabled by Remotely Sensed Big Data Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, IN		Data & Emerging Technologies
B33G	●	Agricultural Systems: Links Between Hydrology and Biogeochemical Cycling III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H		Soils
B33H	●	Use Remote Sensing and Eddy Covariance Techniques to Quantify the Impacts of Climate and Managements on Grassland Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, NH		Natural Resources
B33I	●	Surface-Atmosphere Interactions: From Single Flux Measurements to Integrated Synthesis Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
B33J	●	Spaceborne Lidar for Mapping Vegetation Structure II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
B33K	●	Novel Methods of Connecting Ecosystem Structure to Function with Remote Sensing Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		Data & Emerging Technologies
B33L	●	Advancing Ecosystem Accounting and Ecosystem Service Monitoring Through Earth Observations Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
B33M	●	Impacts of Winter Climate Change on Hydrobiogeochemical Dynamics of Terrestrial and Aquatic Systems During the Winter and Shoulder Seasons II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, H		Natural Resources
B33N	●	Monitoring Forest Structure, Productivity, and Change at the Intersection of Forest Modeling, Remote Sensing, and Field Measurements Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
B33O	●	The Role of Microbes in Terrestrial Biogeochemical Cycles: Linking Responses to Ecosystem Processes and Environmental Change Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Soils
C33C	●	Visualizing the Dynamic Cryosphere eLightning	1:40	3:40		Convention Center	eLightning Theater II			Data & Emerging Technologies
C33A	○	Modeling of the Cryosphere: Glaciers and Ice Sheets I	1:40	3:40		Convention Center	Salon H			
C33B	○	Seasonal Sea Ice and Snow Under Change: Using in Situ Measurements, Remote Sensing, and Modeling to Understand Processes and Properties Across Scales I	1:40	3:40		Convention Center	Salon G			Climate
C33D	●	Glacier Monitoring from in Situ and Remotely Sensed Observations Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
C33E	●	Putting Arctic Science to Work: Using Your Words to Reach Collaborators and Decision Makers Posters	1:40	6:00		Convention Center	Hall A-C (PH)	ED		Science & Society
C33F	●	Integrating Observations and Models to Better Understand a Changing Arctic System Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC, OS		Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
DI33A	○	A Multidisciplinary View of Mantle Heterogeneity: Linking Earth's Chemical, Physical, and Dynamical Evolution I	1:40	3:40		Marriott Marquis	Archives	MR, S, V		
DI33B	●	Forms and Fluxes of Deep Carbon in Earth II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	V		
DI33C	●	The Archean Earth and Its Venusian Analogue II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P, T		Planetary Discovery
ED33A	○	Climate Literacy: Creating Inclusive Pathways Through Informal Science Learning and Higher Education Toward a Climate-Literate Society and Workforce II	1:40	3:40		Marriott Marquis	Marquis 7-8	A, C, GC, SI		Climate
ED33B	○	Evaluation Stands for Evidence-Based Claims About Education, Outreach, and Communication II	1:40	3:40		Marriott Marquis	Marquis 1-2			
ED33C	●	Amazing Technologies and Capabilities That Contribute to STEAM III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	IN, P, PA		Data & Emerging Technologies
ED33D	●	Creating Authentic STEM Experiences in Schools to Meet the Challenges Facing Our Planet Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, PA, SI		
ED33E	●	Early-Career Scientist Networks and Organizations Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA	EGU	
ED33F	●	Graduate Student Experiences, Preparation, and Pathways into the Workforce II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA, SI		Science & Society
EP33A	○	From Granular Physics to Geomorphology: Scaling Surface Processes Beyond the Continuum I	1:40	3:40		Convention Center	147A	H, NG, NH, P		Earth Processes
EP33B	○	Natural and Anthropogenic Disturbances in River Corridors: Quantifying Responses and Restoring Riverine Processes I	1:40	3:40		Convention Center	145B	B, H, SI		Science & Society
EP33C	●	Time, Space, and Hydrologic Influences on Sediment and Nutrient Dynamics: From Sources to Delivery Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H		Soils
EP33D	●	Fluvial Morphodynamics, Channel Patterns, and Beyond Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
EP33E	●	Recent Advances in Fire Modeling Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		Earth Processes
G33A	○	The Global Geodetic Observing System: Essential Geodesy for Earth and Planetary Rotation II	1:40	3:40		Marriott Marquis	Marquis A-C	DI, GP, P		
G33B	●	Modernizing Regional Reference Frames and Vertical Datums for North America I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
G33C	●	Reference Frames: Determination, Usage, and Application I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
GC33A	○	Forest Carbon and Water Dynamics Under Global Environment Change: Patterns, Drivers, and Mechanisms I	1:40	3:40		Convention Center	Salon B	A, B		Earth Processes
GC33B	○	How Can Global Change Research Inform National Security Decision-Making? I	1:40	3:40		Convention Center	Salon C	A, GH, OS, SI		Climate
GC33C	○	Urban Areas and Global Change I	1:40	3:40		Convention Center	Salon A	A, B, H		Climate
GC33D	●	Permafrost Dynamics, Biophysical and Socioeconomic Linkages: Connecting Science to Policy Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, C, NH, SI		Science & Society
GC33E	●	Environmental, Socioeconomic, and Climatic Changes in Northern Eurasia Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, NH, SI		
GC33F	●	Climate-Hydrology-Human Interactions and Their Implications on Hydroclimate Extremes in a Changing Environment Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H, NH		Extreme Events & Hazards
GC33G	●	Regional to Local Energy-Water Dynamics in a Changing and Uncertain Future Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, NH		Climate
GC33H	●	The Rate of Global Warming on Decadal to Multidecadal Timescales: Hiatus Events, Surge Events, and Climate Sensitivity Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, OS		Climate
GC33I	●	Untangling ENSO Complexity: From the Ancient Past to the Far Future Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, OS, PP		Climate
GC33J	●	Large Ensemble Climate Model Simulations: Exploring Natural Variability, Climate Change Signal, Extremes, and Compound Events at Various Spatiotemporal Scales Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
GH33A	○	AGU Climate Solutions Conferences (CSC): Building Multidisciplinary Climate Change Solutions, Education, Communications Partnerships I	1:40	3:40		Marriott Marquis	Independence F-H	GC, NH, PA, SI		Climate
GH33B	●	Earth System Interactions and Implications for Geohealth Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GH33C	●	Geochemistry and Health: Involving Communities in Measuring Their Environment Posters	1:40	6:00		Convention Center	Hall A-C (PH)	ED, GC, NH, SI		Science & Society
H33A	○	Applications of Machine Learning and Data Cubes in Remote Sensing I	1:40	3:40		Convention Center	146C	A, B, GC, IN		Data & Emerging Technologies
H33B	○	Cross-Scale Imaging and Image-Based Modeling of Subsurface Flow and Fluid-Rock Interactions in Porous and Fractured Media I	1:40	3:40		Convention Center	145A	EP, MR, OS, S		Natural Resources
H33C	○	Extreme Rainfall and Flooding: Monitoring, Forecasting, Risk Assessment, and Socioeconomic Consequences I	1:40	3:40		Convention Center	156			Extreme Events & Hazards
H33D	○	Global Synthesis of Land Surface Fluxes Under Natural and Human-Altered Watersheds Using the Budyko Framework I	1:40	3:40		Convention Center	154AB			
H33E	○	Groundwater Sustainability Studies: Integrating Monitoring, Modeling, and Policy II	1:40	3:40		Convention Center	146A			Science & Society
H33F	○	Groundwater-Surface Water Interactions: Identifying and Integrating Physical, Biological, and Chemical Patterns and Processes Across Systems and Scales III	1:40	3:40		Convention Center	146B	B		Earth Processes
H33G	○	Research, Development, and Evaluation of the National Water Model and Facilitation of Community Involvement I	1:40	3:40		Convention Center	101	A		Science & Society
H33H	●	Advances in Ensemble Flood Forecasting, Flood Estimation, and Risk Analysis Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
H33I	●	Advances in Remote Sensing Hydrology III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H33J	●	Conventional and Enhanced Geothermal Systems: Characterization, Integration, Stimulation, Simulation, and Induced Seismicity Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NG, NS, S, V		Natural Resources
H33K	●	Integrative Approaches Toward Large-Scale Water and Energy Cycle Investigations Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		Climate
H33L	●	Long-Term Changes in Hydrologic Catchment Functioning Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H33M	●	Mechanisms, Monitoring, Modeling, and Environmental Impacts of Land Subsidence due to Fluid Extraction Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH		Extreme Events & Hazards
H33N	●	Modeling Hydrological Processes and Changes Under a Changing Environment III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
H33O	●	Multiscale Hydrological Response of Surface and Subsurface Hydrosystems to Climate Variability: The Role of Catchment Physical Properties Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		
H33P	●	Planning, Implementing, and Incorporating Nontraditional Water Sources in Water Supply Systems at Watershed Scale Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, SI		
H33Q	●	Plastic in River Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GH, NH, OS		Science & Society
H33R	●	Quantifying Water Use Through Observation and Simulation Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H33S	●	Recent Advances in Large-Scale, High-Resolution Hydrologic and Flood Modeling for Intensified Extreme Events in a Changing Environment Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, EP, GC, NH		Extreme Events & Hazards
H33T	●	Recent Advances in Pore-Scale Modeling and Experiments for Flow in Porous Media IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, MR, NS, V		Soils
IN33A	○	Big Data in the Geosciences: New Approaches to Storage, Sharing, and Analysis I	1:40	3:40		Convention Center	209A-C	A, B, H, OS		Data & Emerging Technologies
IN33B	●	Boundaries, Buildings, and 'Burbs: Foundational Geospatial Data to Support Sustainable Development, Geohealth, Hazard, and Climate Applications II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, NH, SI		Science & Society
IN33C	●	Data and Information Services for Interdisciplinary Research and Applications in Earth Science II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN33D	●	Geomagnetically Induced Currents and Associated Impact on Technology II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
IN33E	●	Innovative Data-Driven Platforms and VREs for Complex Earth, Space, and Environmental Sciences Applications Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN33F	●	JPSS: Providing Advanced Global Observations to Improve Knowledge and Decisions by a Global Interconnected Community II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, C, H, OS		Extreme Events & Hazards
MR33A	○	Flow and Transport in Unconventional and Conventional Rocks, Fractures, and Analog Media I	1:40	3:40		Marriott Marquis	Capitol/Congress			

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
MR33B	●	Elastic Properties of Earth Materials and Their Application in Seismology and Geodynamics II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	DI, P, S, T	MSA	Earth Processes
MR33C	●	Perspectives on the Planetary Interior at Multiple Scales: Reconciling Experiments, Simulations, and Observations II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	DI	MSA	
NG33A	○	Lorenz Lecture	1:40	2:40	Marriott Marquis	Marquis 5			
NG33B	●	Advances in Data Assimilation, Predictability, and Uncertainty Quantification Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, GC, H, OS		Earth Processes
NH33B	●	Integrated Flood Modeling eLightning	1:40	3:40	Convention Center	eLightning Theater I	H, OS		Extreme Events & Hazards
NH33C	●	Recent Advances and Experience in Riverine Probabilistic Flood Hazard Assessment eLightning	1:40	3:40	Convention Center	eLightning Theater I	H		Extreme Events & Hazards
NH33A	○	Interdisciplinary Tsunami Science III	1:40	3:40	Marriott Marquis	Marquis 9-10	G, OS, S		Extreme Events & Hazards
NH33D	●	Compound and Cascading Events: An Emerging Challenge for Natural Hazard Risk Assessment and Management Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A, H, OS, S		Extreme Events & Hazards
NH33E	●	Research, Risk Analysis, Monitoring, Forecasting, and Mitigation of Natural Hazards in a Dynamic, Changing World Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NS33A	○	Geophysical Methods for Groundwater Evaluation and Management I	1:40	3:40	Marriott Marquis	Marquis 12-13	GH, H		
NS33B	●	Near-Surface Geophysics for Anthropogenic Targets II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	PA, S		Science & Society
NS33C	●	Near-Surface Geophysics General Contributions Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
OS33A	○	Harald Sverdrup Lecture	1:40	2:40	Marriott Marquis	Marquis 6			Climate
OS33B	○	New Frontiers in the Southern Ocean's Role in Climate: Recent Developments in Physical and Biogeochemical Observations and Modeling I	1:40	3:40	Convention Center	102AB			Climate
OS33C	●	Seafloor Hydrocarbon Seepage and Venting: The Contributions and Impacts to the Hydrosphere, Atmosphere, and Seep Habitat Biosphere Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
OS33D	●	Global Developments in Seafloor Mapping: Gaining a Greater Insight into Earth Systems IV Posters	1:40	6:00	Convention Center	Hall A-C (PH)	IN		
OS33E	●	At the Intersection of Society and Our Coasts: Advancements in Coastal Ocean Science and Applications to the Human Dimension Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Science & Society
P33A	○	Enceladus: A World Awaiting I	1:40	3:40	Convention Center	207A			
P33B	○	Mars Global Climate Modeling: From the Surface to the Exobase I	1:40	3:40	Convention Center	206			Climate
P33C	●	A First Look at 162173 Ryugu and 101955 Bennu: Hayabusa 2 and OSIRIS-REx Arrive at Their Respective Target Asteroids III Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Planetary Discovery
P33D	●	Ceres and Vesta: Understanding the Protoplanets of the Asteroid Belt II Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Planetary Discovery
P33E	●	The Uranus and Neptune Systems and Their Relation to Other Planets II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	SM		Planetary Discovery
P33F	●	Results from the Investigation of Jupiter's Atmosphere by Juno and a Supporting Campaign of Earth-Based Observations II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	A		Planetary Discovery
P33G	●	Analogue Studies of Gradient Systems Relevant to Astrobiology on Ocean Worlds and Mars I Posters	1:40	6:00	Convention Center	Hall A-C (PH)			
PA33B	●	Quantifying the Value of Earth Science Information by Identifying How It Changes Societal Outcomes eLightning	1:40	3:40	Convention Center	eLightning Theater II			Science & Society
PA33A	○	Future Prospects of Oil and Gas in a Decarbonized World I	1:40	3:40	Marriott Marquis	Marquis 3-4	GC		Science & Society
PA33C	●	Engaged Scientists: Personal and Professional Climate Action by Climate Change Researchers Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Science & Society
PA33E	●	Science to Action: Addressing Gaps in Access to Climate Science for Decision-Making Posters	1:40	6:00	Convention Center	Hall A-C (PH)	GC, SI		Science & Society
PA33F	●	Science to Action: Meeting the Information Needs for Climate Change Adaptation Decisions Posters	1:40	6:00	Convention Center	Hall A-C (PH)	GH, IN, NH, SI		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PA33G	●	The Future of Science Policy: Funding, Freedom of Scientific Expression, and Federal Decision-Making Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SI		Science & Society
PP33A	○	Lessons for the Future from Cenozoic Warm Climates I	1:40	3:40		Convention Center	Salon I			Climate
PP33B	○	Paleoclimatic History of El Niño–Southern Oscillation I	1:40	3:40		Convention Center	103AB	GC, OS		Climate
PP33C	●	High-Resolution Marine and Terrestrial Proxies: Bridging the Anthropocene to the Holocene and Beyond Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, GC, OS, H		Climate
PP33D	●	Advanced Understanding of Tropical Hydroclimate Changes During the Pleistocene and Holocene Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP33E	●	Understanding the Indian–Asian–Australian Monsoon: Evolution and Links to Tectonic, Climatic, and Biogeochemical Cycles IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP33F	●	Trace Metals as Recorders of Biogeochemical Cycling in Modern and Ancient Settings Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, OS		Earth Processes
S33A	○	Emerging Science from the EarthScope Transportable Array in Alaska and Canada I	1:40	3:40		Marriott Marquis	Independence D			Data & Emerging Technologies
S33B	○	Next-Generation Seismic Source Studies I	1:40	3:40		Marriott Marquis	Independence E			
S33C	●	Induced and Triggered Earthquakes: Theory, Observations, Impact Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S33D	●	Waveform and Tomographic Inversion for Natural and Induced Seismic Events Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S33E	●	New Frontiers in Global Seismic Monitoring and Earthquake Research Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH, T		Extreme Events & Hazards
SA33A	○	Observation and Modeling of High-Latitude Thermosphere Phenomena Driven by Magnetospheric Forcing I	1:40	3:40		Convention Center	202B	SM		
SA33B	●	Data Assimilation and Model Validation for the Mesosphere, Thermosphere, Ionosphere, and Magnetosphere–Ionosphere Coupling Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SA33C	●	Understanding Traveling Ionospheric Disturbances (TIDs) Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH33A	○	Collisionless Shock Waves in Astrophysical Plasmas I	1:40	3:40		Convention Center	207B	P, SM		
SH33B	○	High-Energy Solar Investigations Through Next-Generation Spectroscopy: X-rays, Gamma Rays, and EUV I	1:40	3:40		Convention Center	204A-C			
SH33C	●	The Interstellar Probe Mission: Study Findings and Next Steps Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH33D	●	Visions of Future Innovation Across Space Physics and Aeronomy II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SA, SM		Centennial
SH33E	●	High-Energy Solar Investigations Through Next-Generation Spectroscopy: X-rays, Gamma Rays, and EUV Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH33F	●	Factors That Determine the Properties of Solar Energetic Particle Events Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH33G	●	Solar Radiative Variability: From Minutes to Millennia—The Sun’s Influence on the Earth’s Space Environment, Atmosphere, and Climate Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
SH33H	●	New Approaches to Studying the Middle Solar Corona Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
SM33A	○	Multiscale Investigations of Fundamental Plasma Processes by in Situ Observations and Simulations III	1:40	3:40		Convention Center	201	P, SH		
SM33B	●	Recent Advances in Understanding Energy-Dependent Dynamics of Radiation Belt Particles II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SM33C	●	The Role of Small-Scale Mechanisms in the Driving of Particle Energization and Loss in the Inner Magnetosphere and Radiation Belts II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T33A	○	Deciphering Active Faults: Properties, Processes, and Activity Assessment I	1:40	3:40		Marriott Marquis	Liberty N-P			
T33B	○	Oceanic Lithosphere: Structure and Evolution from Creation to Destruction I	1:40	3:40		Marriott Marquis	Liberty M	DI, S, V		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
T33C	●	(De)Cratonization Dynamics III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, S, V		Earth Processes
T33D	●	Bridging Earthquakes and Earth Structure: Reconciling Deformation Observed over Geologic and Geodetic Timescales II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T33E	●	Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, S		Earth Processes
T33F	●	Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, S		Earth Processes
T33G	●	Shaping Slow and Ultraslow Spreading Seafloor with Faults, Magma, and Fluids II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Earth Processes
V33A	○	Hydrothermal Systems in Oceanic Arcs: Subseafloor Structure, Mineralization Processes, and Vent Communities I	1:40	3:40		Marriott Marquis	Liberty L	B, EP, OS, T		Natural Resources
V33B	○	Origin and Timescales of Magmatic Systems: Discussing Ages, Rates, Transport, and Storage Processes of Magmas from the Source to Emplacement or Eruption I	1:40	3:40		Marriott Marquis	Liberty I-K	DI, MR, NH, P	EGU, GS, MSA	Earth Processes
V33C	●	Accessorize It: Controls on the Mobility of Trace Elements During Subduction Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, MR, T		Earth Processes
V33D	●	Chemistry, Mechanics, Geophysics, and Timescales of Magmatic Processes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, G, NH, S		Earth Processes
V33E	●	Petrochronology 2.01 Posters	1:40	6:00		Convention Center	Hall A-C (PH)	MR		Earth Processes
V33F	●	The 2018 Eruptions of Kīlauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galápagos IV Poster	1:40	6:00		Convention Center	Hall A-C (PH)	GH, IN, S, T		Extreme Events & Hazards
V33G	●	Triple Isotopes of Oxygen and Sulfur in Terrestrial Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, PP		Earth Processes
U33B	○	The Asahiko Taira International Scientific Ocean Drilling Research Prize	2:40	3:40		Marriott Marquis	Marquis 6			
U34A	○	Joint AGU-AAS Session on Frontiers in Exoplanets	4:00	6:00		Convention Center	202A	GP, MR, P, SH		Centennial
A34A	○	Aerosols and Air Quality over South Asia and the Hindu Kush-Himalaya I	4:00	6:00		Convention Center	144A-C	GC, GH, SI		Climate
A34B	○	Air Quality in the Mid-Atlantic States I	4:00	6:00		Convention Center	150B	B		Science & Society
A34C	○	Atmospheric Trace Species Profiles from Long-Term and Campaign Sampling: Observations from Ground, Balloons, and Aircraft III	4:00	6:00		Convention Center	151B	GC		Climate
A34D	○	Bridging the Gap from Climate to Extreme Weather: Theory, Modeling, and Observations III	4:00	6:00		Convention Center	152B			Extreme Events & Hazards
A34E	○	Extratropical Large-Scale Atmospheric Circulation Variability I	4:00	6:00		Convention Center	143A-C	GC, NG		Climate
A34F	○	Insights on Clouds, Convection, and Climate Sensitivity from Idealized Modeling Studies II	4:00	6:00		Convention Center	152A			Climate
A34G	○	Lidar Investigations of Greenhouse Gases, Aerosols, and Clouds II	4:00	6:00		Convention Center	151A			Climate
AE34A	●	High-Resolution Observations and Modeling of Physical Phenomena Involved in Cloud Electrification and Lightning eLightning	4:00	6:00		Convention Center	eLightning Theater II			
B34A	○	Integrated Understanding of Climate, Carbon, Nutrient Cycles, Human Activities, and Their Interactions in Terrestrial Ecosystems I	4:00	6:00		Convention Center	149AB	GC, H		Climate
B34B	○	Interdisciplinary Investigations on Interactions Between Microbes, Nutrients, and Minerals in Terrestrial Ecosystems: Experimental Studies, Fieldwork, and Modeling Analysis II	4:00	6:00		Convention Center	150A			Soils
B34C	○	Sun-Induced Chlorophyll Fluorescence as a Proxy of Photosynthesis: Measurements, Modeling, and Applications from Field, Airborne, and Satellite Platforms II	4:00	6:00		Convention Center	147B	GC, H		Data & Emerging Technologies
C34A	○	Modeling of the Cryosphere: Glaciers and Ice Sheets II	4:00	6:00		Convention Center	Salon H			
C34B	○	Sea Ice-Ocean-Atmosphere Interactions in the "New" Arctic and Southern Oceans I	4:00	6:00		Convention Center	Salon G	A, GC, OS		Climate
ED34A	○	Supporting K-12 Geoscience and Climate Education Through Teacher Professional Development II	4:00	6:00		Marriott Marquis	Marquis 7-8			Science & Society
EP34A	○	From Granular Physics to Geomorphology: Scaling Surface Processes Beyond the Continuum II	4:00	6:00		Convention Center	147A	H, NG, NH, P		Earth Processes
EP34B	○	The Influence of Vegetation and Large Wood on Water, Sediment, and Nutrient Dynamics in Fluvial and Coastal Environments I	4:00	6:00		Convention Center	145B	B, H		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
G34A	○	The Future of Space-Based Observing Systems for Solid-Earth Dynamics Panel	4:00	6:00		Marriott Marquis	Marquis A-C	NH, T, V		
GC34A	○	Fingerprinting the Anthropocene: Observing and Understanding Social Change Across Earth's Landscapes I	4:00	6:00		Convention Center	Salon B	EP, GH, H, NH		Earth Processes
GC34B	○	Improving the Simulation of Climate Impacts on Agriculture: AgMIP and Related Research I	4:00	6:00		Convention Center	Salon C	A, B, H		Science & Society
GC34C	○	Mechanisms of Low-Frequency Ocean-Atmosphere Variability and Implications for Earth's Energy Budget I	4:00	6:00		Convention Center	Salon A	A		Climate
GH34A	○	Safe Drinking Water Starts at the Source: Challenges in Source Water Protection	4:00	6:00		Marriott Marquis	Liberty N-P	H, SI		Science & Society
GH34B	○	Using NASA's Satellite and Suborbital Measurements and Modeling for Health and Air Quality Applications I	4:00	6:00		Marriott Marquis	Independence F-H			Climate
GP34A	○	Chronostratigraphy Using Magnetic Methods I	4:00	6:00		Marriott Marquis	Independence D			
H34H	●	Agrohydrology in a Changing World: From Global Processes to Local Outcomes I eLightning	4:00	6:00		Convention Center	eLightning Theater I	B, GC, SI		Data & Emerging Technologies
H34I	●	Hydrological Connectivity Between Headwaters and Groundwaters in a Changing Climate I eLightning	4:00	6:00		Convention Center	eLightning Theater I			
H34A	○	Advances in Integrated Observations, Modeling, and Predictions for Weather, Climate, and Impact Assessments I	4:00	6:00		Convention Center	154AB	A, ED, NH		Extreme Events & Hazards
H34B	○	Applications of Machine Learning and Data Cubes in Remote Sensing II	4:00	6:00		Convention Center	146C	A, B, GC, IN		Data & Emerging Technologies
H34C	○	Extreme Rainfall and Flooding: Monitoring, Forecasting, Risk Assessment, and Socioeconomic Consequences II	4:00	6:00		Convention Center	156			Extreme Events & Hazards
H34D	○	Groundwater Sustainability Studies: Integrating Monitoring, Modeling, and Policy III	4:00	6:00		Convention Center	146A			Science & Society
H34E	○	Groundwater-Surface Water Interactions: Identifying and Integrating Physical, Biological, and Chemical Patterns and Processes Across Systems and Scales IV	4:00	6:00		Convention Center	146B	B		Earth Processes
H34F	○	Preferential Flows in Fractured Porous Media, Soils, and Rock-Soil Interfaces I	4:00	6:00		Convention Center	145A			Soils
H34G	○	Research, Development, and Evaluation of the National Water Model and Facilitation of Community Involvement II	4:00	6:00		Convention Center	101	A		Science & Society
IN34A	○	Research Data Management: Developing Standards for Data Usability and Trust and Building Capacity with Targeted Data Training for the Research Team I	4:00	6:00		Convention Center	206	ED, GC, OS, PA		Data & Emerging Technologies
IN34B	○	Scalable Data Management Practices in Earth Sciences I	4:00	6:00		Convention Center	209A-C	A, GC, PA, SI		Data & Emerging Technologies
MR34A	○	Coupled Processes in Geological Media and Reservoirs: Field Observations, Experimental, and Modeling I	4:00	6:00		Marriott Marquis	Capitol/Congress	H, V		Climate
NH34A	○	Building Resilience to Natural Hazards by Utilizing Citizen Science and Understanding Compound Hazards	4:00	6:00		Marriott Marquis	Archives	GC, H, SI, T		Extreme Events & Hazards
NH34B	○	Tsunami Research and Early Warning	4:00	6:00		Marriott Marquis	Marquis 9-10	G, OS, S		Extreme Events & Hazards
NH34C	○	Wildfires: Triggers, Predictability, and Impact Assessment	4:00	6:00		Marriott Marquis	Independence E			Extreme Events & Hazards
NS34A	○	Geophysical Methods for Groundwater Evaluation and Management II	4:00	6:00		Marriott Marquis	Marquis 12-13	GH, H		
OS34A	○	Indo-Pacific Ocean Circulation and the Environmental and Climatic Impacts I	4:00	6:00		Convention Center	103AB			Climate
OS34B	○	New Frontiers in the Southern Ocean's Role in Climate: Recent Developments in Physical and Biogeochemical Observations and Modeling II	4:00	6:00		Convention Center	102AB			Climate
P34A	○	Mars Planet-Encircling Dust Event of 2018 II	4:00	6:00		Convention Center	207B			
P34B	○	Titan: Looking Backward, Looking Forward II	4:00	6:00		Convention Center	207A			
PA34C	●	Science to Action Beyond Partnerships: Creating, Scaling, and Sustaining Regional and Sector-Based Networks to Foster Knowledge Coproduction in Support of Climate Change Adaptation eLightning	4:00	6:00		Convention Center	eLightning Theater II	GC		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
PA34A	○	Experiences and Career Opportunities in Science Policy and Diplomacy	4:00	6:00		Marriott Marquis	Marquis 1-2			Science & Society
PA34B	○	Innovation and Regulation: Policies for Facilitating the Adoption of New Approaches to Mitigate Oil and Gas Emissions	4:00	6:00		Marriott Marquis	Marquis 3-4			Science & Society
PP34A	○	Lessons for the Future from Cenozoic Warm Climates II	4:00	6:00		Convention Center	Salon I			Climate
SA34A	○	Employing Space Physics to Mitigate Space Weather Impacts I	4:00	6:00		Convention Center	202B	NH, SI		Science & Society
SH34A	○	New Approaches to Studying the Middle Solar Corona I	4:00	6:00		Convention Center	204A-C			Data & Emerging Technologies
SM34A	○	Multiscale Investigations of Fundamental Plasma Processes by in Situ Observations and Simulations IV	4:00	6:00		Convention Center	201	P, SH		
T34A	○	2018 Birch Lecture	4:00	6:00		Marriott Marquis	Marquis 6			
V34A	○	Hydrothermal Systems in Oceanic Arcs: Subseafloor Structure, Mineralization Processes, and Vent Communities II	4:00	6:00		Marriott Marquis	Liberty L	B, EP, OS, T		Natural Resources
V34B	○	Origin and Timescales of Magmatic Systems: Discussing Ages, Rates, Transport, and Storage Processes of Magmas from the Source to Emplacement or Eruption II	4:00	6:00		Marriott Marquis	Liberty I-K	DI, MR, NH, P	EGU, GS, MSA	Earth Processes
V34C	○	Upper Crust Evolution: Models of Formation and Composition I	4:00	6:00		Marriott Marquis	Liberty M	T, S		Earth Processes

Thursday, 13 December | A.M.

U41A	○	Critical Geohealth Disaster Research to Support Response, Recovery, and Future Preparedness	8:00	10:00		Convention Center	202A	GC, H, S, SI		Extreme Events & Hazards
A41A	○	Advances in Methods and Technologies for Emission Monitoring and Exposure Assessment to Hazardous Air Pollutants II	8:00	10:00		Convention Center	152A			Data & Emerging Technologies
A41B	○	Atmospheric Chemistry in Highly Polluted Environments I	8:00	10:00		Convention Center	151B			Extreme Events & Hazards
A41C	○	Constraining Biosphere-Atmosphere Exchange Processes Using Remote Sensing and in Situ Observations I	8:00	10:00		Convention Center	150B	B, GC		Climate
A41D	○	Interactions Between Land Surface, Convective Boundary Layer, Clouds, and Aerosols: Linking Observations with Models I	8:00	10:00		Convention Center	152B	H		Earth Processes
A41E	○	Multisensor, Model, and Measurement Synergy: Aerosol Sources and Their Environmental Effects I	8:00	10:00		Convention Center	151A	GC, NH		Climate
A41F	○	The Dynamics of the Large-Scale Atmospheric Circulation in Present and Future Climates: Jet Streams, Storm Tracks, Stationary Waves, and Monsoons I	8:00	10:00		Convention Center	144A-C		AMS	
A41G	●	Aerosols and Air Quality over South Asia and the Hindu Kush-Himalaya II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, GH, SI		Climate
A41H	●	Air Quality in the Mid-Atlantic States II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B		Science & Society
A41I	●	Atmospheric Trace Species in the Stratosphere: Distribution, Trends, Variability, and Processes Related to Stratospheric Ozone and Climate III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Climate
A41J	●	Deep-Space Earth Observations II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A41K	●	Small Satellites Have Scientific Value, but Where Do They Fit In? I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN, SA, SH		
A41L	●	Subseasonal to Seasonal Prediction of Weather and Climate IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A41M	●	The Madden-Julian Oscillation and Its Global Impacts: Observations, Modeling, and Prediction II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A41N	●	Use of Unmanned Aircraft Systems (UAS) in Atmospheric Science II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
B41A	○	Carbon Monitoring Systems Research and Applications II	8:00	10:00		Convention Center	149AB	A, GC, PA		Science & Society
B41B	○	Centennial: Biogeosciences—Defining the Pulse of a Living Planet I	8:00	10:00		Convention Center	143A-C			Centennial
B41C	○	Coastal Wetland Carbon: Recent Advances in Measurements, Modeling, and Syntheses I	8:00	10:00		Convention Center	147B			Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
B41D	●	Comparative Organic Geochemistry of Soils and Aquatic Sediments: A New View in the 21st Century I	8:00	10:00		Convention Center	150A	C, EP, H, OS		Earth Processes
B41E	●	Toward Unifying Principles for Wetland Restoration in Light of Chemical and Microbial Ecology Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
B41F	●	Coastal Wetland Resilience and Vulnerability to Disturbances Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
B41G	●	Natural Wetlands, Inland Waters, and the Global Methane Cycle: Reconciling Top-Down Atmospheric Estimates and Bottom-Up Biogeochemical Estimates of Methane Emissions Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
B41H	●	The Global Methane Cycle Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
B41I	●	Integrated Understanding of Climate, Carbon, Nutrient Cycles, Human Activities, and Their Interactions in Terrestrial Ecosystems II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, H		Climate
B41J	●	Advances in Uncertainty Assessment and Reduction for Terrestrial Carbon Cycle Diagnosis and Prediction II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
B41K	●	Nutrient-Carbon Cycle Interactions in Terrestrial Ecosystems Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
B41L	●	The Group on Earth Observations Biodiversity Observation Network (GEO BON): Integrating in Situ and Remotely Sensed Observations to Advance Biodiversity Monitoring, Research, and Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		
B41M	●	Centennial: Earth Observation Capabilities and Future Needs I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, IN, SI		Centennial
B41N	●	Ecological Forecasting in the Earth System I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
C41A	●	Advances in Subglacial, Englacial, and Supraglacial Hydrology I	8:00	10:00		Convention Center	Salon H	EP, H		Earth Processes
C41B	●	Modeling of the Cryosphere: Seasonal Snow I	8:00	10:00		Convention Center	Salon G	H		
C41C	●	Ice Core Records of Environmental Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, GC		Climate
DI41A	●	Exploring the Earth's Core: A Multidisciplinary Approach I	8:00	10:00		Marriott Marquis	Archives			Earth Processes
DI41B	●	A Multidisciplinary View of Mantle Heterogeneity: Linking Earth's Chemical, Physical, and Dynamical Evolution II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	MR, S, V		
ED41A	●	Educator/Student Programs Promoting Authentic Scientific Research I	8:00	10:00		Marriott Marquis	Marquis 1-2			Science & Society
ED41B	●	Reframing the Conversation: Why Diversity in the Geosciences Workforce Matters I	8:00	10:00		Marriott Marquis	Marquis 7-8	IN, PA, SI	EGU	
ED41C	●	Beyond the Numbers: Strategies for More Inclusive Practices Across the Geological Sciences I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	PA, SI		Science & Society
ED41D	●	Bright STaRS: Bright Students Training as Research Scientists Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
ED41E	●	Call to Action: NASA Science and Learning Collaborations I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	P, PA, SI		Science & Society
EP41A	●	Ecohydraulics: Flow-Biota and Sediment-Biota Interactions I	8:00	10:00		Convention Center	147A			Natural Resources
EP41B	●	From Granular Physics to Geomorphology: Scaling Surface Processes Beyond the Continuum Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, NG, NH, P		Earth Processes
EP41C	●	Natural and Anthropogenic Disturbances in River Corridors: Quantifying Responses and Restoring Riverine Processes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, H, SI		Science & Society
EP41D	●	The Influence of Vegetation and Large Wood on Water, Sediment, and Nutrient Dynamics in Fluvial and Coastal Environments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, H		Earth Processes
G41A	●	Modernizing Regional Reference Frames and Vertical Datums for North America II	8:00	10:00		Marriott Marquis	Marquis A-C			
G41B	●	Recent Advances in SAR and InSAR Processing, Analysis, and Cloud Computing II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN		Data & Emerging Technologies
GC41A	●	Addressing the Carbon Challenge Through Negative Emissions, Utilization of Waste Streams, and Measurement Improvements I	8:00	10:00		Convention Center	Salon B			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GC41B	○	Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge I	8:00	10:00		Convention Center	Salon C			Science & Society
GC41C	○	Interpreting Uncertainty in Climate Models, Observations, and Large Data Sets to Better Inform Scientific Understanding in Geoscience I	8:00	10:00		Convention Center	Salon A	A, IN, NH, SI		Data & Emerging Technologies
GC41D	●	Improving the Simulation of Climate Impacts on Agriculture: AgMIP and Related Research Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, H		Science & Society
GC41E	●	Mechanisms of Low-Frequency Ocean-Atmosphere Variability and Implications for Earth's Energy Budget Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A		Climate
GC41F	●	Fingerprinting the Anthropocene: Observing and Understanding Social Change Across Earth's Landscapes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, GH, H, NH		Earth Processes
GC41G	●	Urban Areas and Global Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, H		Climate
GC41H	●	Decision Support Tools To Assess Social and Environmental Processes in the Built Environment Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
GC41I	●	How Can Global Change Research Inform National Security Decision-Making? Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GH, OS, SI		Climate
GH41A	●	AGU Climate Solutions Conferences (CSC): Building Multidisciplinary Climate Change Solutions, Education, Communications Partnerships II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH, PA, SI		Climate
GH41B	●	Safe Drinking Water Starts at the Source: Challenges in Source Water Protection Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, SI		Science & Society
GH41C	●	Using NASA's Satellite and Suborbital Measurements and Modeling for Health and Air Quality Applications II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
GP41A	○	Environmental Processes Revealed Through Soil and Sediment Magnetism I	8:00	10:00		Marriott Marquis	Independence D			Soils
H41A	○	Advances in Watershed Modeling: Hydrologic/Nutrient Processes, Conservation Management, and Model Integration I	8:00	10:00		Convention Center	154AB			Earth Processes
H41B	○	Diagnostics, Sensitivity, and Uncertainty Analysis of Earth and Environmental Models I	8:00	10:00		Convention Center	101	B, EP, GC, NG		
H41C	○	Droughts and Water Challenges in Changing Environments I	8:00	10:00		Convention Center	156	A, GC, NH		Extreme Events & Hazards
H41D	○	General Surface Hydrology I	8:00	10:00		Convention Center	145A			
H41E	○	Recent Advances in Pore-Scale Modeling and Experiments for Flow in Porous Media I	8:00	10:00		Convention Center	146A	EP, MR, NS, V		Soils
H41F	○	Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP) Satellite Mission Products and Validation Experiments I	8:00	10:00		Convention Center	146C	A, B, C, GC		
H41G	○	The Food-Water Link and Nonpoint Source Flux Impact on Groundwater, Vadose Zone, and Surface Water Quality I	8:00	10:00		Convention Center	146B	B		
H41H	○	Utilizing Precipitation Data Sets and Quantifying Associated Uncertainties in Hydrometeorological and Climate Impact Applications I	8:00	10:00		Convention Center	145B	A, NH		Data & Emerging Technologies
H41I	●	Advances in Integrated Observations, Modeling, and Predictions for Weather, Climate, and Impact Assessments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, ED, NH		Extreme Events & Hazards
H41J	●	Advances in Subsurface Characterization Using Innovative Methods of Geophysics and Hydrogeology II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H41K	●	Cross-Scale Imaging and Image-Based Modeling of Subsurface Flow and Fluid-Rock Interactions in Porous and Fractured Media II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, MR, OS, S		Natural Resources
H41L	●	Extreme Rainfall and Flooding: Monitoring, Forecasting, Risk Assessment, and Socioeconomic Consequences III Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
H41M	●	Global Floods: Forecasting, Monitoring, Risk Assessment, and Socioeconomic Response III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, H		Extreme Events & Hazards
H41N	●	Global Synthesis of Land Surface Fluxes Under Natural and Human-Altered Watersheds Using the Budyko Framework Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H41O	●	Preferential Flows in Fractured Porous Media, Soils, and Rock-Soil Interfaces II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H41P	●	Research, Development, and Evaluation of the National Water Model and Facilitation of Community Involvement III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A		Science & Society
H41Q	●	Water, Energy, and Society in Urban Systems III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B		Science & Society
IN41B	●	Advances in Quantum Computing for the Geophysical Sciences I eLightning	8:00	10:00		Convention Center	eLightning Theater II	A, EP, GC, NG		Data & Emerging Technologies
IN41C	●	Data Rescue Is More Than Just a PDF I eLightning	8:00	10:00		Convention Center	eLightning Theater II			Data & Emerging Technologies
IN41A	○	FAIR Data Is Not Enough: Communicating Data Quality and Making Analytical Code FAIR I	8:00	10:00		Convention Center	209A-C	A, C, GC, OS		Data & Emerging Technologies
IN41D	●	Big Data in the Geosciences: New Approaches to Storage, Sharing, and Analysis II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, H, OS		Data & Emerging Technologies
IN41E	●	Research Data Management: Developing Standards for Data Usability and Trust and Building Capacity with Targeted Data Training for the Research Team Posters	8:00	12:20		Convention Center	Hall A-C (PH)	ED, GC, OS, PA		Data & Emerging Technologies
IN41F	●	Scalable Data Management Practices in Earth Sciences Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, PA, SI		Data & Emerging Technologies
MR41A	○	Connecting Rheology, Microstructure, and Chemistry of Earth's Mantle: New Constraints from Experiments, Observations, and Theory I	8:00	10:00		Marriott Marquis	Capitol/Congress			Earth Processes
MR41B	●	Coupled Processes in Geological Media and Reservoirs: Field Observations, Experimental, and Modeling II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H, V		Climate
MR41C	●	Flow and Transport in Unconventional and Conventional Rocks, Fractures, and Analog Media II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
NG41A	○	Scaling, Symmetries, Cascades, and Hazards in Complex Geodynamical Systems: Theory, Applications, and Computational Methods I	8:00	10:00		Marriott Marquis	Marquis 12-13	A, GC, H, NH	EGU, AMS	Earth Processes
NG41B	●	Nonlinear Statistical, Mathematical, and Computational Physics in Complex System Science: Theoretical Advances and Geophysical Applications Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, H, IN, NH		Earth Processes
NH41A	○	Extreme Sea Levels: Statistics, Impacts, and Adaptation	8:00	10:00		Marriott Marquis	Marquis 9-10	OS		Extreme Events & Hazards
NH41B	●	Disaster Diplomacy: Transcending Academic and National Boundaries to Reduce Disaster Risks Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
NH41C	●	Interdisciplinary Tsunami Science Posters	8:00	12:20		Convention Center	Hall A-C (PH)	OS, S		Extreme Events & Hazards
NH41D	●	The Collection of Natural Hazard, Exposure, and Vulnerability Data for Use in Risk Assessments and Other Novel Purposes Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
NS41A	●	Near-Surface Geophysics and Its Applicability to Volcanic Environments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H		Natural Resources
NS41B	●	Near-Surface Geophysics in the Critical Zone Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
OS41A	○	Physical Oceanography, Geodynamics, and Ecological Environment of the Western Pacific I	8:00	10:00		Convention Center	102AB			Climate
OS41B	●	Understanding Changing Ocean Biogeochemistry Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, PP		Climate
OS41C	●	Biogeochemical Cycling in Estuaries, Coastal Waters, and Their Watersheds: Natural Variability, Response to Land Use and Climate Change, and Management Implications IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, H		
OS41D	●	Coastal Altimetry: Retrieval, Applications, and Assimilation in Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G		
OS41E	●	Indo-Pacific Ocean Circulation and the Environmental and Climatic Impacts Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
OS41F	●	Improvements in Synoptic, Subseasonal to Seasonal, and Decadal Projections Through Next-Generation Ocean Model Developments, Observations, and Coupled Data Assimilation Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, IN		
P41A	○	Curiosity's Exploration of Vera Rubin Ridge, Gale Crater, Mars: Redox Interfaces as Indicators of Past Habitable Environments II	8:00	10:00		Convention Center	206			Planetary Discovery
P41B	○	From the Earth to the Moons: Unraveling the Geologic, Oceanographic, and Chemical Mysteries of Ice and Ocean Worlds II	8:00	10:00		Convention Center	207A	C, OS		Planetary Discovery

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
P41C	●	Balloons in Earth and Planetary Sciences: Research, Applications, and Emerging Concepts I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, EP, NS, S		Data & Emerging Technologies
P41D	●	Machine Learning in Planetary Science: Introductions and Applications I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	IN		Data & Emerging Technologies
P41E	●	Observations of Planets Near and Far with Next-Generation Telescopes I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Planetary Discovery
P41F	●	The Future of Planetary Atmospheric, Surface, and Interior Science Using Radio and Laser Links I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
PA41B	●	Art and Science: Transdisciplinary Approaches to Data Exploration and Communication eLightning	8:00	10:00		Convention Center	eLightning Theater I	ED, IN, NH, P		Science & Society
PA41A	○	Energy Policy Under Binding Climate Constraints: When and How Can Society Limit the Extraction of Fossil Fuels? I	8:00	10:00		Marriott Marquis	Marquis 3-4			Climate
PA41C	●	Science to Action: Building Novel and Transformative Partnerships Toward Decision-Relevant Science Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
PA41D	●	Science to Action: Frontiers in Effective Decision Maker-Scientist Partnerships Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
PA41E	●	The Coral Reef Ecosystem: Observation, Configuration, and Communication at the Intersection of Art and Science Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		Science & Society
PP41A	○	Climate of the Common Era I	8:00	10:00		Convention Center	103AB	A, GC		Climate
PP41B	○	Quantifying Arctic System Change: Past, Present, and Future I	8:00	10:00		Convention Center	Salon I	C, GC		Climate
PP41C	●	Lessons for the Future from Cenozoic Warm Climates Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
PP41D	●	Evolution of the Earth System Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, P, V		Earth Processes
PP41E	●	Carbonate Sediments Through Time: Processes of Deposition and Diagenesis IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B	IAS	Earth Processes
PP41F	●	New Perspectives on Past Climates: Progress in Proxy System Modeling, Reconstruction Algorithms, and Uncertainty Quantification Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
S41A	○	Earthquake Source Physics: Unified Perspectives from Kinematic Source Imaging, Physics-Based Modeling, Laboratory Experiments, and Earthquake Geology I	8:00	10:00		Marriott Marquis	Independence E	G, NH, T		
S41B	○	Environmental Seismology: Using Geophysical Tools for Earth Surface Processes Research I	8:00	10:00		Marriott Marquis	Independence F-H	A, NH, NS, OS		Data & Emerging Technologies
S41C	●	Multiscale Interactions Between Foreshocks, Main Shocks, and Aftershocks: Observations and Physical Mechanisms Posters	8:00	12:20		Convention Center	Hall A-C (PH)	T		Earth Processes
S41D	●	Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH, T		Extreme Events & Hazards
S41E	●	The Role of Slow Slip Events in the Earthquake Cycle: Stressing, Triggering, and Hazard Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, NG, NH, T		Extreme Events & Hazards
SA41A	○	The Upper Mesosphere and Lower Thermosphere: Observations, Modeling, and Implications for Future Directions I	8:00	10:00		Convention Center	202B	A		
SA41B	●	Cross-Scale Coupling and Energy Transfer in the Magnetosphere-Ionosphere-Thermosphere System III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SM		
SA41C	●	Cross-Scale Coupling and Energy Transfer in the Magnetosphere-Ionosphere-Thermosphere System IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SM		
SH41A	○	Novel Measurement Techniques for Space Plasma in Heliophysics and Planetary Science I	8:00	10:00		Convention Center	204A-C			
SH41B	○	Space Weather Research and Forecasting: Building Tomorrow's Space Weather Architectures I	8:00	10:00		Convention Center	207B	NH, SA, SI		Extreme Events & Hazards
SH41C	●	Solar and Heliospheric Physics: General Contributions II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SA, SM		
SH41D	●	Novel Measurement Techniques for Space Plasma in Heliophysics and Planetary Science Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
SH41E	●	Space Weather Research and Forecasting: Building Tomorrow's Space Weather Architectures Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NH, SA, SI		Extreme Events & Hazards
SM41A	○	Geospace Research from Polar Environments I	8:00	10:00		Convention Center	201	A, AE, SA, SH		
T41A	○	(De)Cratonization Dynamics I	8:00	10:00		Marriott Marquis	Liberty L	DI, S, V		Earth Processes
T41B	○	Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics I	8:00	10:00		Marriott Marquis	Liberty N-P	G, S		Earth Processes
T41C	○	Multiscale Processes Influencing Tectonics and Earthquakes at Plate Boundary Fault Systems I	8:00	10:00		Marriott Marquis	Liberty M	G, NG, NH, S		
T41D	●	Chronologic Constraints on the Processes and Tempos of Orogenesis Archived in Sedimentary Basins II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
T41E	●	Fold-Thrust Belts Through the Eyes of Their Foreland Basins: The Sedimentary Record of Hinterland Tectonics, Surface Processes, and Basin Evolution II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP		Earth Processes
T41F	●	Seafloor Geodesy: Measuring Deformation of the Seabed II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
T41G	●	Shallow Subduction Zone Structure and Dynamics III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, S, V		Earth Processes
T41H	●	Shallow Subduction Zone Structure and Dynamics IV Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, S, V		Earth Processes
V41A	○	Halogens in the Earth System I	8:00	10:00		Marriott Marquis	Liberty I-K	A		Earth Processes
V41B	○	The 2018 Eruptions of Kīlauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galápagos III	8:00	10:00		Marriott Marquis	Marquis 6	GH, IN, S, T		Extreme Events & Hazards
U42A	○	Sixty Years of Scientific Achievements in the Arctic and Antarctica: Looking Back, Looking Forward	10:20	12:20		Convention Center	202A	C, GC		Science & Society
A41O	○	Future Horizons in Climate Science: Turco Lectureship	9:00	10:00		Marriott Marquis	Marquis 5			
A42A	○	Atmospheric Chemistry in Highly Polluted Environments II	10:20	12:20		Convention Center	151B			Extreme Events & Hazards
A42B	○	Atmospheric Monitoring from Space: The Copernicus S5P and Suomi NPP Constellation II	10:20	12:20		Convention Center	152A	GC, GH, NH		Climate
A42C	○	Land-Atmosphere Interactions of the Tibetan Plateau and Their Impacts on Weather and Climate I	10:20	12:20		Convention Center	152B			Climate
A42D	○	The Dynamics of the Large-Scale Atmospheric Circulation in Present and Future Climates: Jet Streams, Storm Tracks, Stationary Waves, and Monsoons II	10:20	12:20		Convention Center	144A-C		AMS	
B42A	○	Carbon Monitoring Systems Research and Applications III	10:20	12:20		Convention Center	149AB	A, GC, PA		Science & Society
B42B	○	Centennial: Transformational Contributions over the Past 100 Years in the Biogeosciences I	10:20	12:20		Convention Center	143A-C			Centennial
B42C	○	Coastal Wetland Carbon: Recent Advances in Measurements, Modeling, and Syntheses II	10:20	12:20		Convention Center	147B			Earth Processes
B42D	○	The Role of Microbes in Terrestrial Biogeochemical Cycles: Linking Responses to Ecosystem Processes and Environmental Change I	10:20	12:20		Convention Center	150A			Soils
C42A	○	Drivers of Change in the High-Mountain Water Cycle I	10:20	12:20		Convention Center	Salon H	A, H		Climate
C42B	○	Quantifying Spatial and Temporal Variability of Snow and Snow Processes I	10:20	12:20		Convention Center	Salon G	A, GC, H		
DI42A	○	Geophysical Signals of Volatiles, Melting, and Thermochemical Heterogeneity I	10:20	12:20		Marriott Marquis	Archives	MR, S, T, V		Earth Processes
ED42A	○	Climate Literacy: Engaging the Public and Inspiring Action Through Effective Science/Arts/Sustainability Communication I	10:20	12:20		Marriott Marquis	Marquis 7-8	GC, NH, PA, SI		Science & Society
EP42A	○	Forensic Earth: Novel Approaches to Reading Environmental Signals and Quantifying Surface Processes in the Geological Record I	10:20	12:20		Convention Center	147A	GC, H, NG, PP	SEPM	Earth Processes
G42A	○	Reference Frames: Determination, Usage, and Application II	10:20	12:20		Marriott Marquis	Marquis A-C			
GC42A	○	Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge II	10:20	12:20		Convention Center	Salon C			Science & Society
GC42C	○	Linkages Between Climate Policies and Multiple Sustainable Development Goals I	10:20	12:20		Convention Center	Salon B	PA, SI		Climate

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GC42D	○	Untangling ENSO Complexity: From the Ancient Past to the Far Future I	10:20	12:20	Convention Center	Salon A	A, OS, PP		Climate
GP42A	○	Biogeomagnetism, Biogenic Magnetic Minerals, and the Environment I	10:20	12:20	Marriott Marquis	Independence D			
H42A	○	Advances in Watershed Modeling: Hydrologic/Nutrient Processes, Conservation Management, and Model Integration II	10:20	12:20	Convention Center	154AB			Earth Processes
H42B	○	Diagnostics, Sensitivity, and Uncertainty Analysis of Earth and Environmental Models II	10:20	12:20	Convention Center	101	B, EP, GC, NG		
H42C	○	Drought: Dynamics, Impacts, Resilience, and Mitigation II	10:20	12:20	Convention Center	156	B, GC, NH, SI		Extreme Events & Hazards
H42D	○	General Surface Hydrology II	10:20	12:20	Convention Center	145A			
H42E	○	Recent Advances in Pore-Scale Modeling and Experiments for Flow in Porous Media II	10:20	12:20	Convention Center	146A	EP, MR, NS, V		Soils
H42F	○	Recent Advances in the Hydrologic Sciences I	10:20	12:20	Convention Center	146B	C, EP		Centennial
H42G	○	Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP) Satellite Mission Products and Validation Experiments II	10:20	12:20	Convention Center	146C	A, B, C, GC		
H42H	○	Statistical Characterization and Probabilistic Modeling of Precipitation Variability and Extremes Across Multiple Scales I	10:20	12:20	Convention Center	145B	A, NG, NH	EGU	Extreme Events & Hazards
IN42A	○	Data for Our Changing Earth: Impacts of Open Access to Quality Geospatial Data from Trusted Sources I	10:20	12:20	Convention Center	209A-C			Data & Emerging Technologies
IN42B	○	Near-Real-Time/Low-Latency Data for Earth Science and Space Weather Applications I	10:20	12:20	Convention Center	206	A, H, NH, SH		
MR42A	○	Composition and Material Properties of the Core I	10:20	12:20	Marriott Marquis	Capitol/Congress	P, S, V		
NH42A	○	Further Research into the Cause and Impacts of the 2017 Hurricanes with Applications of Flood Warning and Inundation Mapping During the Storms	10:20	12:20	Marriott Marquis	Marquis 9-10	EP, H, IN		Extreme Events & Hazards
NS42A	○	Advances and Revelations from Geophysical Exploration and Observation in the Cryosphere I	10:20	12:20	Marriott Marquis	Marquis 12-13			
OS42A	○	Physical Oceanography, Geodynamics, and Ecological Environment of the Western Pacific II	10:20	12:20	Convention Center	102AB			Climate
P42C	●	The Effects of Impact Cratering on Mafic Rocks and Minerals I eLightning	10:20	12:20	Convention Center	eLightning Theater II			
P42A	○	Exogeoscience and the Habitability of Super-Earths II	10:20	12:20	Convention Center	207B	DI, EP, GP, V		Planetary Discovery
P42B	○	From the Earth to the Moons: Unraveling the Geologic, Oceanographic, and Chemical Mysteries of Ice and Ocean Worlds III	10:20	12:20	Convention Center	207A	C, OS		Planetary Discovery
PA42C	●	Strategies for Climate Communication Across Contexts eLightning	10:20	12:20	Convention Center	eLightning Theater I	ED, GC		Climate
PA42D	●	The Science and Practice of Communicating Science for Policy Makers eLightning	10:20	12:20	Convention Center	eLightning Theater I			Science & Society
PA42A	○	Geoscience and Sustainable Energy Solutions I	10:20	12:20	Marriott Marquis	Marquis 3-4	SI		Natural Resources
PA 42B	○	Science to Inform Climate Resilience and Adaptation Decision-Making and Policy I	10:20	12:20	Marriott Marquis	Marquis 1-2	GC, GH, NH, SI		Science & Society
PP42A	○	Climate of the Common Era II	10:20	12:20	Convention Center	103AB	A, GC		Climate
PP42B	○	Isotope and Trace Element Incorporation in Marine Calcifiers: Cracking the Biomineralization Code to Improve Paleoclimatographic Reconstructions I	10:20	12:20	Convention Center	Salon I	B, OS, GC		Climate
S42A	○	Earthquake Source Physics: Unified Perspectives from Kinematic Source Imaging, Physics-Based Modeling, Laboratory Experiments, and Earthquake Geology II	10:20	12:20	Marriott Marquis	Independence E	G, NH, T		
S42B	○	Environmental Seismology: Using Geophysical Tools for Earth Surface Processes Research II	10:20	12:20	Marriott Marquis	Independence F-H	A, NH, NS, OS		Data & Emerging Technologies
SA42A	○	Progress in Whole Atmosphere Coupling Studies I	10:20	12:20	Convention Center	202B			Earth Processes
SH43D	●	Empirical and Physics-Based Approaches for Predicting Solar Wind Speed eLightning	10:20	12:20	Convention Center	eLightning Theater II			Science & Society
SH42A	○	Parker Solar Probe Takes the Plunge I	10:20	12:20	Convention Center	204A-C			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
SM42A	○	Magnetotail Dipolarization and Its Effects Throughout the Magnetosphere and Ionosphere I	10:20	12:20		Convention Center	201			Earth Processes
T42A	○	(De)Cratonization Dynamics II	10:20	12:20		Marriott Marquis	Liberty L	DI, S, V		Earth Processes
T42B	○	Bridging Earthquakes and Earth Structure: Reconciling Deformation Observed over Geologic and Geodetic Timescales I	10:20	12:20		Marriott Marquis	Liberty I-K			
T42C	○	Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics II	10:20	12:20		Marriott Marquis	Liberty N-P	G, S		Earth Processes
T42D	○	The Nature of Creeping Faults: Where, Why, and How They Slip Slowly I	10:20	12:20		Marriott Marquis	Liberty M	G, MR, NS, S		Earth Processes
TT32A	TT	Integrating Public Health and Well-Being into the Geosciences	10:20	10:50		Marriott Marquis	University of DC/Catholic University	GC, GH, PA, SI		
V42A	○	The Daly Lecture	10:20	11:20		Marriott Marquis	Marquis 6			
TT42B	TT	Ecological Drought: An Emerging Threat Across the United States	10:50	11:20		Marriott Marquis	University of DC/Catholic University	GC, H, SI		
GC42B	○	The Bolin Lecture	11:20	12:20		Marriott Marquis	Marquis 6			
TT42C	TT	Oceanography from Space for Everyone: Demystifying Satellite Data for Researchers and End Users	11:20	11:50		Marriott Marquis	University of DC/Catholic University	OS		

Thursday, 13 December | P.M.

U43B	🗨	Agency Lecturer: Dr. Jim Reilly	12:30	1:30		Convention Center	Ballroom A-C			
A43A	○	Boundary Layer Clouds and Atmosphere, Biosphere, Land, and Ocean Interactions II	1:40	3:40		Convention Center	152B	B, GC, H, OS		
A43B	○	Deep-Space Earth Observations I	1:40	3:40		Convention Center	146C			Climate
A43C	○	Extratropical and High-Latitude Storms, Teleconnections, Extreme Weather, and the Changing Polar Climate I	1:40	3:40		Convention Center	146B	C, GC, H, OS	AMS	Climate
A43D	○	Laboratory Studies in Atmospheric Sciences II	1:40	3:40		Convention Center	146A			
A43E	○	New Directions for Open-Source Air Quality Data: Applications in Health, Air Quality, Environmental Management, and Public Outreach I	1:40	3:40		Convention Center	147A	GC, GH, NH, PA		
A43F	○	Observations and Modeling of the Upper Troposphere and Lower Stratosphere I	1:40	3:40		Convention Center	154AB			Climate
A43G	○	Quantifying and Reducing the Uncertainties in the Global and Regional Aerosol Forcing of Climate I	1:40	3:40		Convention Center	151A			
A43H	○	Remote Sensing of CH4 and CO2 from Space: New Observing System Capabilities I	1:40	3:40		Convention Center	151B	B, GC		Climate
A43I	○	The Dynamics of the Large-Scale Atmospheric Circulation in Present and Future Climates: Jet Streams, Storm Tracks, Stationary Waves, and Monsoons III	1:40	3:40		Convention Center	144A-C		AMS	
A43J	○	Use of Unmanned Aircraft Systems (UAS) in Atmospheric Science I	1:40	3:40		Convention Center	152A			Science & Society
A43K	●	Atmospheric Aerosol Processes Across Scales I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A43L	●	Atmospheric Chemistry in Highly Polluted Environments III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
A43M	●	Atmospheric Oxidation Capacity Constraints: Laboratory Investigations, Field and Remote Sensing Observations, and Modeling Studies II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A43N	●	Constraining Biosphere-Atmosphere Exchange Processes Using Remote Sensing and in Situ Observations II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC		Climate
A43O	●	Local Processes and Global Impact of the Indo-Pacific Maritime Continent II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Climate
A43P	●	Rising Atmospheric Methane: Causes and Consequences II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC, SI		Climate
A43Q	●	Tropical Cyclones: Observations, Modeling, and Predictability I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH		Extreme Events & Hazards

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
A43R	●	Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
B43F	●	Terrestrial and Aquatic Methane Sinks: New Discoveries and Revisions, from Molecular to Global Perspectives I eLightning	1:40	3:40		Convention Center	eLightning Theater I			
B43A	○	Nutrient-Carbon Cycle Interactions in Terrestrial Ecosystems I	1:40	3:40		Convention Center	150B			Climate
B43B	○	Satellite Land Surface Products at Medium/High Resolution: Algorithms, Validation, and Applications I	1:40	3:40		Convention Center	143A-C			Earth Processes
B43C	○	State of the Carbon Cycle in North America: Key Findings from Assessing a Decade of Science, Decisions, and Management Impacts I	1:40	3:40		Convention Center	150A	A, OS, PA		Climate
B43D	○	The Global Methane Cycle I	1:40	3:40		Convention Center	147B	A, GC		Climate
B43E	○	The Group on Earth Observations Biodiversity Observation Network (GEO BON): Integrating in Situ and Remotely Sensed Observations to Advance Biodiversity Monitoring, Research, and Applications I	1:40	3:40		Convention Center	149AB	GC, OS		
B43G	●	Coastal Wetland Carbon: Recent Advances in Measurements, Modeling, and Syntheses III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
B43H	●	Microbiome and Microbial Biogeochemistry in Terrestrial Saline/Hypersaline Environments Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, GC		Climate
B43I	●	The Resilience of Wetland Ecosystems to Multiscale Environmental Changes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Extreme Events & Hazards
B43J	●	Centennial: "Biogeosciences: Defining the Pulse of a Living Planet" II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Centennial
B43K	●	Comparative Organic Geochemistry of Soils and Aquatic Sediments: A New View in the 21st Century II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, EP, H, OS		Earth Processes
B43L	●	Freshwater Salinization Syndromes: Causes, Consequences, and Management Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H		Soils
B43M	●	Plant-Soil Interactions Under Global Warming: Learning Mechanisms from Multiyear Field Experiments and Natural Gradients Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC		Soils
C43A	○	Beyond Ice Thickness: Using Radar Sounding to Understand the Dynamics of Glacier Systems I	1:40	3:40		Convention Center	Salon H			Data & Emerging Technologies
C43B	○	Collaborative Research to Address Changes in the Climate, Hydrology, and Cryosphere of High-Mountain Asia I	1:40	3:40		Convention Center	Salon G			Climate
C43C	●	Observing, Modeling, Diagnosing, and Predicting Hydrological and Earth System Change in Cold Regions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, H		
C43D	●	New Data Sources for the Monitoring of Polar Ice Sheets and Their Impact on Ice Sheet Prediction Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, GC, OS		Data & Emerging Technologies
C43E	●	Advances in Observing and Modeling Ice Sheet and Ice Shelf Surface Mass Balance: Past, Present, and Future Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H		Climate
D143A	○	A Unified View of the Composition, Structure, and Dynamics of the Lithosphere I	1:40	3:40		Marriott Marquis	Archives	S, T, MR, V		Earth Processes
D143B	●	Exploring the Earth's Core: A Multidisciplinary Approach II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
D143C	●	Geophysical Signals of Volatiles, Melting, and Thermochemical Heterogeneity II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	MR, S, T, V		Earth Processes
ED43A	○	Beyond the Numbers: Strategies for More Inclusive Practices Across the Geological Sciences II	1:40	3:40		Marriott Marquis	Marquis 7-8	PA, SI		Science & Society
ED43B	○	Call to Action: NASA Science and Learning Collaborations II	1:40	3:40		Marriott Marquis	Marquis 1-2	P, PA, SI		Science & Society
ED43C	●	Art and Science: Assessing and Evaluating Learning and Impact Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA		Science & Society
ED43D	●	Climate Literacy: Engaging the Public and Inspiring Action Through Effective Science/Arts/Sustainability Communication II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, NH, PA, SI		Science & Society
ED43E	●	Climate Literacy: Reaching Broad Audiences Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
ED43F	●	Cross-Cultural Scientific Investigation: Connecting Remote Sensors with Ground Sensors Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, GH, H		
ED43G	●	Educator/Student Programs Promoting Authentic Scientific Research II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
ED43H	●	Using Virtual and Physical Models to Develop Spatial Skills in the Lab, Field, and Classroom Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
EP43A	○	Aeolian Research at the Interface of Sedimentary, Atmospheric, and Biological Processes I	1:40	3:40		Convention Center	145B	A, B, P		Earth Processes
EP43B	○	Machine Learning Applications in Earth Surface Processes Research I	1:40	3:40		Convention Center	145A	B, GC, NH, OS		Data & Emerging Technologies
EP43C	●	Ecohydraulics: Flow-Biota and Sediment-Biota Interactions Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Natural Resources
EP43D	●	Forensic Earth: Novel Approaches to Reading Environmental Signals and Quantifying Surface Processes in the Geological Record Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, NG, PP	SEPM	Earth Processes
G43A	○	Geodetic Measurements of the Earth's Elastic Response to Surface Mass Variability II	1:40	3:40		Marriott Marquis	Marquis A-C			
G43B	●	Glacial Isostatic Adjustment and the Importance of High-Quality Instrumental and Geological Constraints Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, OS, PP		
G43C	●	Hydrogeophysics from Local to Global Scales I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, S		
G43D	●	Scientific Applications Enabled by the International GNSS Service (IGS) and by Improvements to GNSS Products I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, NH, S, T		Data & Emerging Technologies
G43E	●	Integration of GNSS into Water Level Observation Networks: Priorities, Technologies, and Benefits I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
GC43A	○	Applications of Earth Observations for Addressing Environmental and Development Challenges in Africa I	1:40	3:40		Convention Center	Salon A			Natural Resources
GC43B	○	Managing Regional and Global Agricultural Sustainability Using Earth Observations, Modeling, and Artificial Intelligence I	1:40	3:40		Convention Center	Salon B	B, IN, PA		
GC43C	○	Schneider Lecture	1:40	2:40		Marriott Marquis	Marquis 6			Climate
GC43D	○	The Role of Fire in the Earth System: Understanding Drivers, Feedbacks, and Interactions with the Land, Atmosphere, and Society I	1:40	3:40		Convention Center	Salon C	A, B		Climate
GC43E	●	GHG Pathways for the Paris Climate Agreement Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
GC43F	●	Linkages Between Climate Policies and Multiple Sustainable Development Goals Posters	1:40	6:00		Convention Center	Hall A-C (PH)	PA, SI		Climate
GC43G	●	Addressing the Carbon Challenge Through Negative Emissions, Utilization of Waste Streams, and Measurement Improvements Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
GC43H	●	Forest Carbon and Water Dynamics Under Global Environment Change: Patterns, Drivers, and Mechanisms Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B		Earth Processes
GC43I	●	Earth Observations for Food Security and Agriculture: Synthesizing Public and Private Sector Knowledge Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
GC43J	●	Interpreting Uncertainty in Climate Models, Observations, and Large Data Sets to Better Inform Scientific Understanding in Geoscience Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, IN, NG, SI		Data & Emerging Technologies
GC43K	●	The Third Pole Environment (TPE) Under Global Changes Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, C, H		
GH43A	●	Arctic Geohealth: Climate Change and Health Impacts in Northern High Latitudes I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC		
GH43B	●	GeoHealth General Contributions Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
GH43C	●	Ocean Health, Environmental Hazards, and Social Justice: Information and Communication for Resilience and Sustainability of Geohealth Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC, OS, SI	JpGU	Extreme Events & Hazards
GP43A	●	Reconstructing the Paleomagnetic Field: From Data to Models II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
GP43B	●	Chronostratigraphy Using Magnetic Methods II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
GP43C	●	Environmental Processes Revealed Through Soil and Sediment Magnetism II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Soils
GP43D	●	Biogeomagnetism, Biogenic Magnetic Minerals, and the Environment II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H43B	●	Ecohydrological Interactions with Precipitation eLightning	1:40	3:40		Convention Center	eLightning Theater II	A, B, C, GC		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H43A	○	The Paul A. Witherspoon Lecture in Hydrologic Sciences	1:40	2:40		Marriott Marquis	Marquis 5			
H43C	●	Advances in Watershed Modeling: Hydrologic/Nutrient Processes, Conservation Management, and Model Integration Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
H43D	●	Diagnostics, Sensitivity, and Uncertainty Analysis of Earth and Environmental Models Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, GC, NG		
H43E	●	General Surface Hydrology Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H43F	●	Global Precipitation Measurement, Validation, and Applications V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A		Extreme Events & Hazards
H43G	●	Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
H43H	●	Statistical Characterization and Probabilistic Modeling of Precipitation Variability and Extremes Across Multiple Scales II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, NG, NH	EGU	Extreme Events & Hazards
H43I	●	The Food-Water Link and Nonpoint Source Flux Impact on Groundwater, Vadose Zone, and Surface Water Quality II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		
H43J	●	Urban Flooding: Data, Modeling, Rainfall, and Impacts II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A		Extreme Events & Hazards
H43K	●	Water Quality and Watersheds: From Scientific Innovations to Actions III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		
IN43A	○	Data and Information Services for Interdisciplinary Research and Applications in Earth Science I	1:40	3:40		Convention Center	209A-C			Data & Emerging Technologies
IN43B	○	Geomagnetically Induced Currents and Associated Impact on Technology I	1:40	3:40		Convention Center	156			Extreme Events & Hazards
IN43C	●	FAIR Data Is Not Enough: Communicating Data Quality and Making Analytical Code FAIR Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, C, GC, OS		Data & Emerging Technologies
IN43D	●	Near-Real-Time/Low-Latency Data for Earth Science and Space Weather Applications II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H, NH, SH		
MR43A	○	Tensile and Shear Dynamic Rupturing Across Multiple Scales: Precursory Deformation I	1:40	3:40		Marriott Marquis	Capitol/Congress			
MR43B	●	Composition and Material Properties of the Core II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	P, S, V		
MR43C	●	Connecting Rheology, Microstructure, and Chemistry of Earth's Mantle: New Constraints from Experiments, Observations, and Theory II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
NG43A	●	Scaling, Symmetries, Cascades, and Hazards in Complex Geodynamical Systems: Theory, Applications, and Computational Methods Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC, H, NH	EGU, AMS	Extreme Events & Hazards
NH43A	○	Benchmarks for Extreme Space Weather Events	1:40	3:40		Marriott Marquis	Marquis 9-10	PA, SM		Extreme Events & Hazards
NH43B	●	Building Resilience to Natural Hazards by Utilizing Citizen Science and Understanding Compound Hazards Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, SI, T		Extreme Events & Hazards
NH43C	●	Extreme Sea Levels: Statistics, Impacts, and Adaptation Posters	1:40	6:00		Convention Center	Hall A-C (PH)	OS		Extreme Events & Hazards
NH43D	●	Risk Management of Natural Hazards in Urban Regions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC, H, SI		Extreme Events & Hazards
NH43E	●	Tsunami Research and Early Warning Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, OS, S		Extreme Events & Hazards
NS43A	○	Near-Surface Geophysics in the Critical Zone I	1:40	3:40		Marriott Marquis	Marquis 12-13			Earth Processes
NS43B	●	Advances and Revelations from Geophysical Exploration and Observation in the Cryosphere Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
NS43C	●	Unoccupied Airborne Systems: Advances and Applications for Hydrology and Geophysics Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H	SEG	Data & Emerging Technologies
OS43A	○	Coastal Altimetry: Retrieval, Applications, and Assimilation in Models I	1:40	3:40		Convention Center	101	G		
OS43B	○	Sea Level Change and Coastal Impacts and Flooding I	1:40	3:40		Convention Center	102AB	C, G, PP, SI		Science & Society
OS43C	●	Temporal Variability in Oceanic Mesoscale Activity, from Seasonal to Multidecadal Records Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		Climate
OS43D	●	Physical Oceanography, Geodynamics, and Ecological Environment of the Western Pacific Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
OS43E	●	Unprecedented Bering Sea Ice Extent and Impacts to Marine Ecosystems and Western Alaskan Communities Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GH		Climate
OS43F	●	Biogeochemical Cycling in Estuaries, Coastal Waters, and Their Watersheds: Natural Variability, Response to Land Use and Climate Change, and Management Implications V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, GC, H		
P43A	○	Diagenesis on Mars and Clues from Terrestrial Systems II	1:40	3:40		Convention Center	206	B, EP, V		Planetary Discovery
P43B	○	Planetary Rings, Meteoroid and Dust Populations, and Effects I	1:40	3:40		Convention Center	207A	NH, SA, SH		
P43C	○	The Significance of Late Accretion for Composition and Early Evolution of the Terrestrial Planets II	1:40	3:40		Convention Center	204A-C	DI, MR, V		Planetary Discovery
P43D	●	The Interiors of Jupiter and Saturn in the Era of Juno and Cassini II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, GP		Planetary Discovery
P43E	●	Cassini's Legacy: Atmospheric, Magnetospheric, and Heliospheric Discovery II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Planetary Discovery
P43F	●	Enceladus: A World Awaiting II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
P43G	●	Climate and Habitability of Rocky Planets in the Solar System and Beyond I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, EP, PP		Planetary Discovery
P43H	●	Impacts of Space Weather from the Sun and Active Stars on Atmospheric Evolution of Terrestrial (Exo)Planets I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GP, SH, SM		Planetary Discovery
P43I	●	Mars Global Climate Modeling: From the Surface to the Exobase II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
P43J	●	Mars Planet-Encircling Dust Event of 2018 I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
P43K	●	Processes in the Present-Day Atmosphere of Mars III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, SA		Planetary Discovery
P43L	●	Unanswered Questions in Mars Atmospheric Science: What Future Observations Are Best Suited to Addressing Them? I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
PA43A	○	Science to Action: Building Novel and Transformative Partnerships Toward Decision-Relevant Science I	1:40	3:40		Marriott Marquis	Marquis 3-4			Science & Society
PA43B	●	Geoscience and Sustainable Energy Solutions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SI		Natural Resources
PA43C	●	Indigenous Data Sovereignty: How Scientists and Researchers Can Empower Indigenous Data Governance Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PA43D	●	Science to Action: Metrics for Societal Impact of Research—What Do We Value, and How Do We Capture It? Posters	1:40	6:00		Convention Center	Hall A-C (PH)	ED, GC, GH		Science & Society
PA43E	●	Science to Action: Using Science for Justice by Building Knowledge, Linking Communities, and Advocating for Change Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PA43F	●	Science to Inform Climate Resilience and Adaptation Decision-Making and Policy Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, NH, SI		Science & Society
PA43G	●	Utilizing Indigenous and Local Knowledge in Disaster Risk Reduction Research and Policies Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Science & Society
PP43A	○	Isotope and Trace Element Incorporation in Marine Calcifiers: Cracking the Biomineralization Code to Improve Paleocceanographic Reconstructions II	1:40	3:40		Convention Center	Salon I	B, OS, GC		Climate
PP43B	○	Looking Back, You Know It's Hot: Climate Reconstructions from the Mesozoic and Cenozoic Warm Intervals I	1:40	3:40		Convention Center	103AB			
PP43C	●	Climate of the Common Era III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		Climate
PP43D	●	Paleoclimatic History of El Niño–Southern Oscillation Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, OS		Climate
PP43E	●	The Global Expression of the 8.2 ka Event Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP43F	●	The Last Glacial Termination in the Middle and High Latitudes of the Southern Hemisphere Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, GC		Climate
PP43G	●	Quantifying Arctic System Change: Past, Present, and Future Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC		Climate
S43A	○	Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment I	1:40	3:40		Marriott Marquis	Independence E	NH, T		Extreme Events & Hazards
S43B	○	Recent Progress in Nuclear Test Monitoring Capability I	1:40	3:40		Marriott Marquis	Independence F-H	A, NS, PA		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
S43C	●	Earthquake Source Physics: Unified Perspectives from Kinematic Source Imaging, Physics-Based Modeling, Laboratory Experiments, and Earthquake Geology Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, NH, T		
S43D	●	Seismology Contributions: Earthquake Ground Motions and Engineering Seismology III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S43E	●	Seismology Contributions: Advances in Instrumentation and Installation I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SA43A	○	Gravity Waves in the Mesosphere, Thermosphere, and Ionosphere I	1:40	3:40		Convention Center	202B	A		
SA43B	●	Gravity Waves in the Mesosphere, Thermosphere, and Ionosphere Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A		
SA43C	●	Observation and Modeling of High-Latitude Thermosphere Phenomena Driven by Magnetospheric Forcing Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SM		
SA43D	●	The Interactions, Dynamics, and Energetics in the Andes (IDEA) Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH43A	○	Science of the Young Solar Wind: Coordinated Science II	1:40	3:40		Convention Center	207B			
SH43B	●	Science of the Young Solar Wind: Coordinated Science Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH43C	●	Origin of Neutrals and Singly Ionized Atoms in the Corona and Interplanetary Space Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SH43E	●	Effect of Solar Energetic Particles and Galactic Cosmic Rays on the Geospace Environment Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
SH43F	●	Solar and Heliospheric Physics: General Contributions III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SA, SM		
SM43A	○	Recent Observational Findings and Modeling Efforts to Understand Small-Scale Magnetospheric Energy Input and Its Impact on the IT System I	1:40	3:40		Convention Center	201	SA		
SM43B	●	Magnetospheric Physics: General Contributions Posters	1:40	6:00		Convention Center	Hall A-C (PH)	SA, SH		
SM43C	●	Progress of Inner Magnetosphere Research by Coordinated Observations from Satellites and Ground II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SM43D	●	Quantitative Understanding of Particle Dynamics in Earth's Radiation Belts III Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
SM43E	●	Understanding Earth's Ring Current: Measurements, Theory, and Modeling II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T43A	○	Current Understanding of Large Igneous Provinces, Hot Spot Tracks, and Mantle Plumes I	1:40	3:40		Marriott Marquis	Independence D	DI, GP, V		Earth Processes
T43B	○	Interplay Between Seismic and Aseismic Slip: Implications for Fault Physics III	1:40	3:40		Marriott Marquis	Liberty N-P	G, S		Earth Processes
T43C	○	Postcollisional Extensional Tectonics and Basin Evolution in the Gulf of Mexico and Elsewhere I	1:40	3:40		Marriott Marquis	Liberty M			Earth Processes
T43D	●	Application of Gravity, Magnetic, and Heat Flow to Tectonic Studies II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, GP, S		Earth Processes
T43E	●	Seismotectonic Processes Along Active Latin American Margins: Earthquakes and Aseismic Signatures II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
T43F	●	Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere-Asthenosphere System from Crust to Transition Zone IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, MR, S, V		
T43G	●	Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere-Asthenosphere System from Crust to Transition Zone V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, MR, S, V		
T43H	●	The Complex Multiscale Earth: Holistic Modeling of the Crust and Upper Mantle Leveraging Multiple Data Sets to Robustly Constrain Structure and Dynamics I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	G, GP, MR, S		Natural Resources
T43I	●	The Arctic Connection: Investigating the Tectonic Evolution of the Circum-Arctic I Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GP, MR, S, V		
U43A	○	The Legacy and Future of the Washington, D. C., Region as a Collaborative Center for Geoscience Research	1:40	3:40		Convention Center	202A	ED, P, SI, V		Centennial
V43A	○	Innovations in Isotope Mass Spectrometry and Isotope Metrology in Geosciences I	1:40	3:40		Marriott Marquis	Liberty L			
V43B	○	Volcanic Ash Plumes: Generation, Dynamics, Electrification, Dispersion, and Impacts I	1:40	3:40		Marriott Marquis	Liberty I-K	AE, A, NH		
V43C	●	Continental Intraplate Magmas: Their Origins and Significance Interpreted from Multidisciplinary Studies Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH, P, S, T		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
V43D	●	Glass and Stone Cavities in Minerals: Melt Inclusions at 160 Years Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Earth Processes
V43E	●	Halogens in the Earth System Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A		Earth Processes
V43F	●	Hydrothermal Systems in Oceanic Arcs: Subseafloor Structure, Mineralization Processes, and Vent Communities III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, OS, T		Natural Resources
V43G	●	New Insights into Oceanic Spreading Centers from Seafloor Observatories Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, OS, S, T		Earth Processes
V43H	●	Origin and Timescales of Magmatic Systems: Discussing Ages, Rates, Transport, and Storage Processes of Magmas from the Source to Emplacement or Eruption Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, MR, NH, P	EGU, MSA	Earth Processes
V43I	●	Storage, Cycling, and Environmental Consequences of Magmatic Volatile Transfer from the Mantle to the Atmosphere Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, OS, PP, T		Earth Processes
V43J	●	The 2018 Eruptions of Kīlauea Volcano, Hawaii, and Fernandina and Sierra Negra Volcanoes, Galápagos V Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GH, IN, S, T		Extreme Events & Hazards
V43K	●	Upper Crust Evolution: Models of Formation and Composition Posters	1:40	6:00		Convention Center	Hall A-C (PH)	T, S		Earth Processes
GC43L	○	Tyndall Lecture	2:40	3:40		Marriott Marquis	Marquis 6			Climate
OS43G	○	The William S. and Carelyn Y. Reeburgh Lecture	2:40	3:40		Marriott Marquis	Marquis 5			Climate
U44A	○	The New Generation of Scientists	4:00	6:00		Convention Center	202A			
A44A	○	A New Era for Aerosol Products from Geostationary Satellites for Air Quality Operational and Research Applications I	4:00	6:00		Convention Center	147A			
A44B	○	Interactions of Air Quality and Meteorology on Local to Synoptic Scales I	4:00	6:00		Convention Center	150B	GH		
A44C	○	Large-Scale Moist Circulations and Tropical Variability I	4:00	6:00		Convention Center	144A-C			
A44D	○	Quantifying and Reducing the Uncertainties in the Global and Regional Aerosol Forcing of Climate II	4:00	6:00		Convention Center	151A			
A44E	○	Remote Sensing of CH4 and CO2 from Space: New Observing System Capabilities II	4:00	6:00		Convention Center	151B	B, GC		Climate
A44F	○	Role of Ocean-Atmosphere Interaction in Regional Climate Variability and Change I	4:00	6:00		Convention Center	152B	GC, OS	AMS, EGU	Climate
A44G	○	Small Satellites Have Scientific Value, but Where Do They Fit In? II	4:00	6:00		Convention Center	152A	IN, SA, SH, SM		
B44E	●	Spaceborne Lidar for Mapping Vegetation Structure I eLightning	4:00	6:00		Convention Center	eLightning Theater I			Data & Emerging Technologies
B44A	○	Centennial: Earth Observation Capabilities and Future Needs II	4:00	6:00		Convention Center	143A-C	GC, IN, SI		Centennial
B44B	○	Ecological Forecasting in the Earth System II	4:00	6:00		Convention Center	149AB			Science & Society
B44C	○	Soil Carbon Dynamics and Impacts of Land Use and Management I	4:00	6:00		Convention Center	150A	GC		Soils
B44D	○	The Global Methane Cycle II	4:00	6:00		Convention Center	147B	A, GC		Climate
C44A	○	Advances in Understanding Processes at the Beds of Glaciers and Ice Sheets I	4:00	6:00		Convention Center	Salon H			Climate
C44B	○	Collaborative Research to Address Changes in the Climate, Hydrology, and Cryosphere of High-Mountain Asia II	4:00	6:00		Convention Center	Salon G			Climate
DI44A	○	A Unified View of the Composition, Structure, and Dynamics of the Lithosphere II	4:00	6:00		Marriott Marquis	Archives	MR, S, T, V		Earth Processes
ED44B	●	Developing Computational Thinking Skills with MATLAB eLightning	4:00	6:00		Convention Center	eLightning Theater II			Data & Emerging Technologies
ED44A	○	Beyond the Numbers: Strategies for More Inclusive Practices Across the Geological Sciences III	4:00	6:00		Marriott Marquis	Marquis 7-8	PA, SI		Science & Society
EP44A	○	The Sharp Lecture	4:00	6:00		Marriott Marquis	Marquis 6			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
G44A	○	Glacial Isostatic Adjustment and the Importance of High-Quality Instrumental and Geological Constraints I	4:00	6:00		Marriott Marquis	Marquis A-C	C, GC, OS, PP		
GC44D	●	High-Resolution Solar Energy Monitoring and Forecast from Satellite Observations and Model Forecasts I eLightning	4:00	6:00		Convention Center	eLightning Theater II	IN		Science & Society
GC44A	○	Application of Forest Change Mapping and Error Estimation to Forest Carbon Financing Mechanisms and Rural Development I	4:00	6:00		Convention Center	Salon A	PA, SI		Natural Resources
GC44B	○	Evolving Aspects of Agricultural Systems I	4:00	6:00		Convention Center	Salon B	B, IN, PA		
GC44C	○	The Role of Fire in the Earth System: Understanding Drivers, Feedbacks, and Interactions with the Land, Atmosphere, and Society II	4:00	6:00		Convention Center	Salon C	A, B		Climate
H44A	○	Applications of GRACE/GRACE-FO Missions in Terrestrial Hydrology I	4:00	6:00		Convention Center	146C	G		Data & Emerging Technologies
H44B	○	Comparative Sociohydrology: Regime Shifts, System Dynamics, and Resilience I	4:00	6:00		Convention Center	145B	GH, NH		Extreme Events & Hazards
H44C	○	Coupling Water and Carbon Cycles in a Changing Environment I	4:00	6:00		Convention Center	154AB	GC		Earth Processes
H44D	○	Drought Process and Prediction: Vulnerability, Hazard, and Risk I	4:00	6:00		Convention Center	156	A, GC, NH		Extreme Events & Hazards
H44E	○	Monitoring and Modeling Spatial Patterns in Hydrology: Integrating Distributed Earth Observations for the Seamless Calibration and Evaluation of Hydrological and Land Surface Models I	4:00	6:00		Convention Center	145A			
H44F	○	Recent Advances in Pore-Scale Modeling and Experiments for Flow in Porous Media III	4:00	6:00		Convention Center	146A	EP, MR, NS, V		Soils
H44G	○	Remote Sensing and Modeling of the Terrestrial Water Cycle I	4:00	6:00		Convention Center	146B			
IN44A	○	Boundaries, Buildings, and 'Burbs: Foundational Geospatial Data to Support Sustainable Development, Geohealth, Hazard, and Climate Applications I	4:00	6:00		Convention Center	209A-C	GC, GH, NH, SI		Science & Society
IN44B	○	JPSS: Providing Advanced Global Observations to Improve Knowledge and Decisions by a Global Interconnected Community I	4:00	6:00		Convention Center	206	A, C, H, OS		Extreme Events & Hazards
MR44A	○	Advances in the Prediction, Characterization, and Design of Subsurface Infrastructure I	4:00	6:00		Marriott Marquis	Capitol/Congress			Earth Processes
NH44A	○	Extreme Wildfires in 2018 I	4:00	6:00		Marriott Marquis	Independence D	GC		Extreme Events & Hazards
NH44B	○	Research, Risk Analysis, Monitoring, Forecasting, and Mitigation of Natural Hazards in a Dynamic, Changing World	4:00	6:00		Marriott Marquis	Marquis 9-10			Extreme Events & Hazards
NS44A	○	Near-Surface Geophysics and Its Applicability to Volcanic Environments I	4:00	6:00		Marriott Marquis	Marquis 12-13	H, V	SEG	Natural Resources
OS44A	○	Improvements in Synoptic, Subseasonal to Seasonal, and Decadal Projections Through Next-Generation Ocean Model Developments, Observations, and Coupled Data Assimilation I	4:00	6:00		Convention Center	101	A, IN		Climate
OS44B	○	Sea Level Change and Coastal Impacts and Flooding II	4:00	6:00		Convention Center	102AB	C, G, PP, SI		Science & Society
P44A	○	Icarus Worlds: Exploring Hot Exoplanets and Planetary Satellites from Their Interiors to Their Exospheres I	4:00	6:00		Convention Center	207B	A, EP, NS, V		Earth Processes, Planetary Discovery
P44B	○	Planetary Atmospheres and Evolution I	4:00	6:00		Convention Center	207A	A, PP		Planetary Discovery
PA44A	○	Science to Action: Frontiers in Effective Decision Maker-Scientist Partnerships I	4:00	6:00		Marriott Marquis	Marquis 3-4			Science & Society
PA44B	○	Using Earth Observations for Resource Management in the Western United States: The Nexus of Water and Food Security	4:00	6:00		Marriott Marquis	Marquis 1-2			Science & Society
PP44A	○	Isotope and Trace Element Incorporation in Marine Calcifiers: Cracking the Biomineralization Code to Improve Paleoclimatological Reconstructions III	4:00	6:00		Convention Center	Salon I	B, OS, GC		Climate
PP44B	○	Looking Back, You Know It's Hot: Climate Reconstructions from the Mesozoic and Cenozoic Warm Intervals II	4:00	6:00		Convention Center	103AB			Climate
S44A	○	Beyond the Earthquake Cycle: Field and Modeling Constraints of Earthquake Rupture Along Complex-Geometry Fault Systems and Implications for Seismic Hazard Assessment II	4:00	6:00		Marriott Marquis	Independence E	NH, T		Extreme Events & Hazards

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
S44B	○	Infrasonic and Seismoacoustic Analysis for Global Security I	4:00	6:00		Marriott Marquis	Independence F-H			
SA44A	○	Data Assimilation and Model Validation for the Mesosphere, Thermosphere, Ionosphere, and Magnetosphere-Ionosphere Coupling I	4:00	6:00		Convention Center	202B			
SH44A	○	Solar and Heliospheric Physics: General Contributions IV	4:00	6:00		Convention Center	204A-C	SA, SM		
SM44A	○	Wave Processes in Magnetosphere-Ionosphere-Thermosphere Coupling I	4:00	6:00		Convention Center	201	A, SA		
T44A	○	Exploring Subduction Initiation Processes and Subduction Zone Dynamics: New Insights from Scientific Drilling, Marine Geophysics, and Ophiolites I	4:00	6:00		Marriott Marquis	Liberty L	OS, S, V		
T44B	○	Postcollisional Extensional Tectonics and Basin Evolution in the Gulf of Mexico and Elsewhere II	4:00	6:00		Marriott Marquis	Liberty M	EP		Earth Processes
T44C	○	Seafloor Geodesy: Measuring Deformation of the Seabed I	4:00	6:00		Marriott Marquis	Liberty N-P			Data & Emerging Technologies
V44A	○	What Can Pyroclasts Tell Us? I	4:00	6:00		Marriott Marquis	Liberty I-K			Science & Society

Friday, 14 December | A.M.

U51A	○	New Models of Citizen Science for the Next Century of AGU: Approaches to Enable Meaningful Engagement with Evidence and the Scientific Process	8:00	10:00		Convention Center	202A	ED, EP, P, PA		Science & Society
A51A	○	Advances in an Integrated Global Observing System for Air Quality I	8:00	10:00		Convention Center	144A-C	GC, GH		
A51B	○	Arctic and Midlatitude Linkage: Causes and Effects I	8:00	10:00		Convention Center	152A	C, GC		Climate
A51C	○	Laboratory Studies in Atmospheric Sciences III	8:00	10:00		Convention Center	151A			
A51D	○	Rising Atmospheric Methane: Causes and Consequences I	8:00	10:00		Convention Center	151B	B, GC, SI		
A51E	○	Role of Ocean-Atmosphere Interaction in Regional Climate Variability and Change II	8:00	10:00		Convention Center	152B	GC, OS	AMS, EGU	Climate
A51F	○	Tropical Cyclones: Observations, Modeling, and Predictability II	8:00	10:00		Convention Center	143A-C	NH		Extreme Events & Hazards
A51G	●	A New Era for Aerosol Products from Geostationary Satellites for Air Quality Operational and Research Applications II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A51H	●	Climate Variability and Ocean-Atmosphere Interaction over the North Atlantic I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, GC, OS, PP		Climate
A51I	●	Extratropical and High-Latitude Storms, Teleconnections, Extreme Weather, and the Changing Polar Climate II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, GC, H, OS	AMS	Climate
A51J	●	Interactions of Air Quality and Meteorology on Local to Synoptic Scales II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A51K	●	Large-Scale Moist Circulations and Tropical Variability II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A51L	●	Multisensor, Model, and Measurement Synergy: Aerosol Sources and Their Environmental Effects II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH		Climate
A51M	●	New Directions for Open-Source Air Quality Data: Applications in Health, Air Quality, Environmental Management, and Public Outreach II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, GH, NH, PA		Data & Emerging Technologies
A51N	●	Observations and Modeling of Air Quality at Land-Water Boundaries I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A51O	●	Observations and Modeling of the Upper Troposphere and Lower Stratosphere II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
A51P	●	Polar Atmospheric Processes and Their Interactions with Land, Ice, and Ocean II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C		Climate
A51Q	●	Quantifying and Reducing the Uncertainties in the Global and Regional Aerosol Forcing of Climate III Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
A51R	●	Remote Sensing of CH4 and CO2 from Space: New Observing System Capabilities III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC		Climate
A51S	●	Stratosphere-Troposphere Coupling: Large-Scale Atmospheric Dynamics and Transport I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
B51A	○	From -omics to the Earth System: Bridging Scales to Improve our Understanding of Earth System Function and Response I	8:00	10:00		Convention Center	149AB	GC		Soils

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
B51B	○	New Insights to Soil Structure and Function: Bridging Plant, Microbe, and Mineral Constituents Using Experimentation and Multiscale Modeling I	8:00	10:00		Convention Center	150A			Soils
B51C	○	Tropical Forests Under a Changing Environment I	8:00	10:00		Convention Center	147B			Climate
B51D	○	Understanding the Biogeochemistry of Nitrogen Inputs and Outputs from Molecular to Global Scales I	8:00	10:00		Convention Center	150B	GC, OS, PP		Climate
B51E	●	Carbon Feedbacks in Earth's Climate System: Beyond Emergent Patterns and Toward Mechanistic Processes to Reduce Future Climate Uncertainty Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
B51F	●	Identifying and Reducing Biogeochemical and Physical Uncertainty in Ocean Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, OS		Climate
B51G	●	Emergent Behavior in the Terrestrial Carbon Cycle I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, H		Climate
B51H	●	Understanding Phenological Responses and Feedbacks in Terrestrial Vegetation: Patterns, Mechanisms, and Consequences I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, SI		Climate
B51I	●	Understanding the Role of Plant Hydraulics Across Scales I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	H		
B51J	●	Land Management in the Earth System: Measurements and Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, H, SI		Science & Society
B51K	●	Mercury Biogeochemistry and Environmental Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, GH, SI		
B51L	●	River Corridor Biogeochemical and Hydrologic Dynamics Across Scales Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Soils
C51A	○	Advances in Observing and Modeling Ice Sheet and Ice Shelf Surface Mass Balance: Past, Present, and Future I	8:00	10:00		Convention Center	Salon H	A, H		Climate
C51B	○	Observing, Modeling, Diagnosing, and Predicting Hydrological and Earth System Change in Cold Regions I	8:00	10:00		Convention Center	Salon G	A, B, H		
C51C	●	Advancing Understanding of Cold Climate Hydrologic and Geomorphic Systems in a Warming Climate Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, EP, GC, H		Earth Processes
C51D	●	Forty Years of Eyes on the Planet: An Uninterrupted Record of Earth Remote Sensing with Satellite Passive Microwave Instruments Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
C51E	●	Advances in Understanding Processes at the Beds of Glaciers and Ice Sheets Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
C51F	●	Beyond Ice Thickness: Using Radar Sounding to Understand the Dynamics of Glacier Systems Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
C51G	●	Advances in Subglacial, Englacial, and Supraglacial Hydrology Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, H		Earth Processes
D151A	○	Diverse Perspectives on the Deep Mantle I	8:00	10:00		Marriott Marquis	Archives	MR, P, S, V		
D151B	●	A Unified View of the Composition, Structure, and Dynamics of the Lithosphere III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	S, T, MR, V		Earth Processes
ED51A	○	Connecting the World to the Poles Through Science Communication, Education, and Outreach I	8:00	10:00		Marriott Marquis	Marquis 7-8	C		Climate
ED51B	○	Educating the Next Generation of Scientists: Interdisciplinary Education Bridging Geoscience and Data Science I	8:00	10:00		Marriott Marquis	Marquis 1-2			Data & Emerging Technologies
ED51C	●	Bridging the Interface Between Educational and Citizen Science Seismology Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
ED51D	●	Building Community Resilience Through Education and Public Engagement: Linking Theory to Practice I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH, PA, SI		Science & Society
ED51E	●	Building Stronger Communities in Academia for Effective Education and Outreach I Posters	8:00	12:20		Convention Center	Hall A-C (PH)		NAGT-GER	Science & Society
ED51F	●	Citizen Science Showcase: Strategies to Engage Citizens and Students in Research I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	PA, SI, SM		Data & Emerging Technologies
ED51G	●	Implementing and Sustaining Active Learning Strategies in the College Classroom I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
ED51H	●	Teaching Introductory Geophysics Using Near-Surface Methods and Experiments Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
ED51I	●	Tomorrow's Geoscience Textbooks Today Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
EP51B	●	Evaluating the Influence of Geomorphology on Carbon Cycling II eLightning	8:00	10:00		Convention Center	eLightning Theater II			Earth Processes
EP51A	○	Advances and Challenges to Understanding Sedimentary Processes, Dynamics, and the Creation of Stratigraphic Patterns Through Integrated Studies of Sedimentary Deposits from Grain to Basin I	8:00	10:00		Convention Center	145B			Earth Processes
EP51C	●	Aeolian Research at the Interface of Sedimentary, Atmospheric, and Biological Processes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, P		Earth Processes
EP51D	●	Interactions Between Neotectonics and Surface Processes Along Active Plate Boundaries I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	T		Earth Processes
EP51E	●	Machine Learning Applications in Earth Surface Processes Research Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, NH, OS		Data & Emerging Technologies
G51A	○	Scientific Applications Enabled by the International GNSS Service (IGS) and by Improvements to GNSS Products I	8:00	10:00		Marriott Marquis	Marquis A-C	C, NH, S, T		Data & Emerging Technologies
G51B	●	An Ongoing Transformation: High-Resolution Topography in the Geosciences I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, EP, NH, OS		Data & Emerging Technologies
G51C	●	Earth Science Research and Change Detection Using Multitemporal Lidar and SfM I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP		Earth Processes
G51D	●	General Contributions to Geodesy Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
G51E	●	Geodetic and Magnetic Investigations of Crust and Mantle of Earth and Other Planetary Bodies Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GP, P		Earth Processes
G51F	●	Gravity Field Determination: Acquisition, Processing, and Geodetic Applications of Terrestrial, Marine, and Airborne Gravity Data I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	NS		Data & Emerging Technologies
GC51A	○	Creating Convergence Among Academic, State, Federal, and NGO Initiatives to Enhance Sustainability and Resilience of Coastal Systems I	8:00	10:00		Convention Center	Salon A	EP, H, NH, SI		Climate
GC51B	○	The Third Pole Environment (TPE) Under Global Changes I	8:00	10:00		Convention Center	Salon C	A, B, C, H		
GC51C	○	Toward Better Understanding of the Impacts of Climate Variability on Agricultural Decision-Making and Longer-Term Adaptation I	8:00	10:00		Convention Center	Salon B	A, H, SI		
GC51D	●	Global Observations of Land, Forests, and Fires: Priorities for a Sustainable Research and Capacity Building Strategy in Developing Countries Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Natural Resources
GC51E	●	The Role of Fire in the Earth System: Understanding Drivers, Feedbacks, and Interactions with the Land, Atmosphere, and Society Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B		Climate
GC51F	●	Application of Forest Change Mapping and Error Estimation to Forest Carbon Financing Mechanisms and Rural Development Posters	8:00	12:20		Convention Center	Hall A-C (PH)	PA, SI		Natural Resources
GC51G	●	Evolving Aspects of Agricultural Systems Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, IN, PA		
GC51H	●	Managing Regional and Global Agricultural Sustainability Using Earth Observations, Modeling, and Artificial Intelligence Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, IN, PA		
GC51I	●	Energy-Water-Land Systems Under Climate Variability and Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Science & Society
GC51J	●	Observed and Projected Climate Change Impacts on Water Resources, Agriculture, and Health Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GH, H, NH, SI		Climate
GC51K	●	Climate Variability and the African Environment, Water Resources, and Food Security Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, H, SI		Climate
GC51L	●	Applications of Earth Observations for Addressing Environmental and Development Challenges in Africa Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Natural Resources
GC51M	●	The Global Water Cycle: Linkages of Ocean Salinity with the Atmosphere and Terrestrial Hydrology Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, C, H, OS		Climate
GC51N	●	Dynamic Coastal Systems: Human-Landscape Interactions Under Changing Environmental Conditions Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, SI		Climate
GC51O	●	Causes, Consequences, and Predictability of Polar Change Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, C, H, OS		Climate
GP51A	○	The Polar Geomagnetic Field in the Northern and Southern Hemispheres	8:00	10:00		Marriott Marquis	Independence D			

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H51A	○	Advances in Subsurface Characterization Using Innovative Methods of Geophysics and Hydrogeology I	8:00	10:00		Convention Center	156			
H51B	○	Global Floods: Forecasting, Monitoring, Risk Assessment, and Socioeconomic Response I	8:00	10:00		Convention Center	145A	NH		Extreme Events & Hazards
H51C	○	Global Precipitation Measurement, Validation, and Applications I	8:00	10:00		Convention Center	146B	A		Extreme Events & Hazards
H51D	○	Legacy Effects of Land Use on Water Quality, Watershed Processes, and Ecosystem Function: Implications for Science and Policy I	8:00	10:00		Convention Center	146A	B, EP, SI		Science & Society
H51E	○	Sensor Networks in Hydrology I	8:00	10:00		Convention Center	154AB	NH		Data & Emerging Technologies
H51F	○	Water, Energy, and Society in Urban Systems I	8:00	10:00		Convention Center	146C	A, B		Science & Society
H51G	●	Drought Process and Prediction: Vulnerability, Hazard, and Risk Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, NH		Extreme Events & Hazards
H51H	●	Droughts and Water Challenges in Changing Environments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, GC, NH		Extreme Events & Hazards
H51I	●	New Methods for Hydrologic Drought Characterization, Prediction, and Assessment Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
H51J	●	Advances in Hydrogeology for Drought Impact Mitigation Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
H51K	●	Drought: Dynamics, Impacts, Resilience, and Mitigation I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GC, NH, SI		Extreme Events & Hazards
H51L	●	The Role of Data in Understanding and Attributing Changes in Hydrologic Extremes Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH		Climate
H51M	●	Applications of GRACE/GRACE-FO Missions in Terrestrial Hydrology Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G		Data & Emerging Technologies
H51N	●	Comparative Sociohydrology: Regime Shifts, System Dynamics, and Resilience II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GH, NH		Extreme Events & Hazards
H51O	●	Computational Methods and Tools for Model-Data Integration Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
H51P	●	Coupled Processes in Fractured Media Across Scales: Experimental and Modeling Advances Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H51Q	●	Coupling Water and Carbon Cycles in a Changing Environment Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Earth Processes
H51R	●	Evapotranspiration: Advances in Remote Sensing-Based Estimation, Mapping, and Evaluation Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, EP, GC, IN		Earth Processes
H51S	●	Hydrologic Applications for Global Water Security Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GH, PA		Extreme Events & Hazards
H51T	●	Monitoring and Modeling Spatial Patterns in Hydrology: Integrating Distributed Earth Observations for the Seamless Calibration and Evaluation of Hydrological and Land Surface Models Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H51U	●	New Tools, Methods, and Case Studies to Support Communities in Adopting Green Infrastructure to Manage Storm Water Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC		Science & Society
H51V	●	Remote Sensing and Modeling of the Terrestrial Water Cycle II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
H51W	●	Science and Applications Results Based on NASA Soil Moisture Active Passive (SMAP) Satellite Mission Products and Validation Experiments III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, B, C, GC		
H51X	●	Water and Society: Modeling Tools, Communication Channels, and Stakeholder Engagement to Inform Public Policy I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SI		Science & Society
IN51A	○	Developing Innovative Tools and Services to Enable Data Discovery and Use of Big Data Variety Across Broad User Communities I	8:00	10:00		Convention Center	209A-C	ED		Data & Emerging Technologies
IN51B	●	Enabling Cloud Applications for Earth Science Data Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN51C	●	Enabling Transparency and Reproducibility in Geoscience Through Practical Provenance and Cloud-Based Workflows Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN51D	●	Transforming Earth and Planetary Science with Mixed Reality and Innovative Visualization Solutions II: Novel Approaches to Visualizing Data Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, H, OS, P		Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
MR51A	○	Rock-Fluid Interactions in Carbon Utilization and Storage I	8:00	10:00		Marriott Marquis	Capitol/Congress	H		
MR51B	●	Advances in the Prediction, Characterization, and Design of Subsurface Infrastructure II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
MR51C	●	Tensile and Shear Dynamic Rupturing Across Multiple Scales: Precursory Deformation II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
NH51A	○	Risk Management of Natural Hazards in Urban Regions	8:00	10:00		Marriott Marquis	Marquis 9-10	A, GC, H, SI		Extreme Events & Hazards
NS51A	○	A Tour of Open-Source Software Packages for the Geosciences I	8:00	10:00		Marriott Marquis	Marquis 12-13			Data & Emerging Technologies
OS51A	○	Surface Water and Ocean Topography (SWOT) Mission: Oceanography, Hydrology, and Their Interaction at the Estuaries I	8:00	10:00		Convention Center	102AB	H		Earth Processes
OS51B	○	Temporal Variability in Oceanic Mesoscale Activity, from Seasonal to Multidecadal Records I	8:00	10:00		Convention Center	101	A, GC		Climate
OS51C	●	Coastal Response to Extreme Events: Fidelity of Model Predictions of Surge, Inundation, and Morphodynamics Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, NH		Extreme Events & Hazards
OS51D	●	Improved Observational and Modeling Skills to Understand the Hurricane and Winter Storm Induced Surge and Meteotsunami Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
OS51E	●	Sea Level Change and Coastal Impacts and Flooding Posters	8:00	12:20		Convention Center	Hall A-C (PH)	C, G, PP, SI		Science & Society
OS51F	●	Geological and Geophysical Characterization of Marine Gas Hydrate Reservoirs Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP		Natural Resources
P51A	●	Mitigation and Consequences of Asteroid Impacts I eLightning	8:00	10:00		Convention Center	eLightning Theater I	EP, MR, NH, SI		Extreme Events & Hazards
P51B	○	Observations of Planets Near and Far with Next-Generation Telescopes II	8:00	10:00		Convention Center	207A			Planetary Discovery
P51C	○	The Use of Analogue Environments in Preparing for the Exploration and Characterization of Planetary Surfaces II	8:00	10:00		Convention Center	206			
P51D	●	Characterizing Regolith and Subsurface Volatiles on Icy and Rocky Bodies I Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP		Planetary Discovery
P51E	●	Geology and Geophysics of Planetary Surfaces and Interiors: Methods, Modeling, and Missions I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Planetary Discovery
P51F	●	Planetary Atmospheres and Evolution II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, PP		Planetary Discovery
P51G	●	Radar Investigations of Planetary Surfaces and Subsurfaces I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Planetary Discovery
P51H	●	Space Environments of Unmagnetized or Weakly Magnetized Solar System Bodies and the Effects of Space Weather on These Systems I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
PA51A	○	Science to Action: How Hydrologists and Residents Can Work Together to Reduce the Impact of Flooding I	8:00	10:00		Marriott Marquis	Marquis 3-4	GC, H, NH, OS		Science & Society
PA51B	●	Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, GH, NH		Science & Society
PA51C	●	Native Science to Action: How Indigenous Perspectives Inform, Diversify, and Build Capacity in Environmental Science and Policy Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GC, GH, H		Science & Society
PP51A	○	Carbonate Sediments Through Time: Processes of Deposition and Diagenesis I	8:00	10:00		Convention Center	Salon I	B	IAS	Earth Processes
PP51B	○	Evolution of the Earth System I	8:00	10:00		Convention Center	103AB	A, B, P, V		Earth Processes
PP51C	●	Assessing Regional Climate Signals from Southern South America: Modern and Paleo Efforts Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
PP51D	●	The K-Pg Mass Extinction and the Chicxulub Impact Crater Posters	8:00	12:20		Convention Center	Hall A-C (PH)	P		Climate
PP51E	●	Looking Back, You Know It's Hot: Climate Reconstructions from the Mesozoic and Cenozoic Warm Intervals Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Climate
PP51F	●	Isotope and Trace Element Incorporation in Marine Calcifiers: Cracking the Biomineralization Code to Improve Paleoclimatographic Reconstructions Posters	8:00	12:20		Convention Center	Hall A-C (PH)	B, OS, GC		Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
S51A	○	Full-Waveform Modeling and Inversion: Advances and Applications I	8:00	10:00		Marriott Marquis	Independence F-H	DI, NS, T, V		
S51B	○	Multiscale Interactions Between Foreshocks, Main Shocks, and Aftershocks: Observations and Physical Mechanisms I	8:00	10:00		Marriott Marquis	Independence E	T		Earth Processes
S51C	●	On the Symbiosis Between Fundamental and Exploration Geophysics II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	GP, MR, NG, NS	JpGU	
S51D	●	Environmental Seismology: Using Geophysical Tools for Earth Surface Processes Research Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, NH, NS, OS		Data & Emerging Technologies
S51E	●	Geophysical Characterization of Fluid Flow in Subsurface Sediments Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, GP, MR, NS		Earth Processes
S51F	●	Geophysical Monitoring for Geologic Carbon Utilization and Storage Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SA51A	○	Understanding Traveling Ionospheric Disturbances (TIDs) I	8:00	10:00		Convention Center	202B			
SA51B	●	Progress in Whole Atmosphere Coupling Studies Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
SH51A	○	Particle Acceleration and Transport at the Sun and in the Inner Heliosphere I	8:00	10:00		Convention Center	207B			Extreme Events & Hazards
SH51B	●	Parker Solar Probe Takes the Plunge Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SH51C	●	Particle Acceleration and Transport at the Sun and in the Inner Heliosphere Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
SH51D	●	Large-Scale Interplanetary Structures and Their Space Weather Effects I Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SH51E	●	Fundamental Physics of the Solar Corona and Inner Heliosphere Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SM51A	○	Challenges in Extreme Space Weather Research: Science, Applications, and Policies for Rare Events II	8:00	10:00		Convention Center	201	NH, SA, SH		Extreme Events & Hazards
SM51B	○	Magnetospheres in the Inner Solar System II	8:00	10:00		Convention Center	204A-C	P		
SM51C	●	Geospace Research from Polar Environments II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, AE, SA, SH		
SM51D	●	Magnetotail Dipolarization and Its Effects Throughout the Magnetosphere and Ionosphere II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
SM51E	●	Plasma Dynamics in the Nightside Transition Region II Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
SM51F	●	Recent Observational Findings and Modeling Efforts to Understand Small-Scale Magnetospheric Energy Input and Its Impact on the IT System II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	SA		
SM51G	●	Wave Processes in Magnetosphere-Ionosphere-Thermosphere Coupling II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	A, SA		
T51A	○	Application of Gravity, Magnetic, and Heat Flow to Tectonic Studies I	8:00	10:00		Marriott Marquis	Liberty L	DI, GP, S		Earth Processes
T51B	○	Fold-Thrust Belts Through the Eyes of Their Foreland Basins: The Sedimentary Record of Hinterland Tectonics, Surface Processes, and Basin Evolution I	8:00	10:00		Marriott Marquis	Liberty M	EP		Earth Processes
T51C	○	Shallow Subduction Zone Structure and Dynamics I	8:00	10:00		Marriott Marquis	Liberty N-P	G, S, V		Earth Processes
T51D	●	Current Understanding of Large Igneous Provinces, Hot Spot Tracks, and Mantle Plumes II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, GP, V		Earth Processes
T51E	●	Exploring Subduction Initiation Processes and Subduction Zone Dynamics: New Insights from Scientific Drilling, Marine Geophysics, and Ophiolites II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	OS, S, V		
T51F	●	Mountain Building in Collisional and Cordilleran Orogenic Systems III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	EP, G, S, V		Earth Processes
T51G	●	Multiscale Processes Influencing Tectonics and Earthquakes at Plate Boundary Fault Systems II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, NG, NH, S		
T51H	●	Postcollisional Extensional Tectonics and Basin Evolution in the Gulf of Mexico and Elsewhere III Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Earth Processes
T51I	●	Subduction Zone Processes at the Hikurangi Margin, New Zealand III Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, NH, S		Extreme Events & Hazards
T51J	●	The Nature of Creeping Faults: Where, Why, and How They Slip Slowly II Posters	8:00	12:20		Convention Center	Hall A-C (PH)	G, MR, NS, S		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
V51A	○	Storage, Cycling, and Environmental Consequences of Magmatic Volatile Transfer from the Mantle to the Atmosphere I	8:00	10:00		Marriott Marquis	Liberty I-K	DI, OS, PP, T		Earth Processes
V51B	●	A Perfect Match: Bringing Together Models of Geodynamics and Thermodynamics to Understand Geochemical and Petrological Observations Posters	8:00	12:20		Convention Center	Hall A-C (PH)	DI, T		
V51C	●	Innovations in Isotope Mass Spectrometry and Isotope Metrology in Geosciences Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
V51D	●	Quantitative Volcanic Hazard Assessment and Uncertainty Analysis in Satellite Remote Sensing and Modeling Posters	8:00	12:20		Convention Center	Hall A-C (PH)			Extreme Events & Hazards
V51E	●	Volcanic Ash Plumes: Generation, Dynamics, Electrification, Dispersion, and Impacts Posters	8:00	12:20		Convention Center	Hall A-C (PH)	AE, A, NH		
V51F	●	What Can Pyroclasts Tell Us? Posters	8:00	12:20		Convention Center	Hall A-C (PH)			
U52A	○	Geoscience Impact in a Complex World: Successful Collaboration with Social Scientists	10:20	12:20		Convention Center	202A	GC, NH, PA, SI		Science & Society
A52A	○	Advances in an Integrated Global Observing System for Air Quality II	10:20	12:20		Convention Center	144A-C	GC, GH		
A52B	○	Arctic Energy Balance and Relevant Atmosphere and Surface Processes: Current Understanding and Challenges I	10:20	12:20		Convention Center	152A	C, GC		Climate
A52C	○	Atmospheric Aerosol Processes Across Scales II	10:20	12:20		Convention Center	151A			Climate
A52D	○	Boundary Layer Processes and Turbulence II	10:20	12:20		Convention Center	152B	B, GC, H		
A52E	○	The Tropical Versus Polar "Tug of War" on the Atmospheric General Circulation Response to Climate Change I	10:20	12:20		Convention Center	150B	C, GC, OS, PP		Climate
A52F	○	Tropical Cyclones: Observations, Modeling, and Predictability III	10:20	12:20		Convention Center	143A-C	NH		Extreme Events & Hazards
A52G	○	Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots II	10:20	12:20		Convention Center	151B			
B52A	○	Plant-Soil Interactions Under Global Warming: Learning Mechanisms from Multiyear Field Experiments and Natural Gradients I	10:20	12:20		Convention Center	150A	GC		Soils
B52B	○	The Importance of Episodic Events on Sediment Transport and Biogeochemical Cycling at Coastal Margins I	10:20	12:20		Convention Center	149AB	EP, GC, OS		Extreme Events & Hazards
B52C	○	Tropical Forests Under a Changing Environment II	10:20	12:20		Convention Center	147B			Climate
C52A	○	Ice Core Records of Environmental Change I	10:20	12:20		Convention Center	Salon H	A, B, GC		Climate
C52B	○	Observing, Modeling, Diagnosing, and Predicting Hydrological and Earth System Change in Cold Regions II	10:20	12:20		Convention Center	Salon G	A, B, H		
ED52A	○	Narrative as Pedagogy: Using Science Storytelling in Earth and Space Science Teaching I	10:20	12:20		Marriott Marquis	Marquis 7-8			Science & Society
EP52C	●	Advancing Theory and Modeling of River Systems I eLightning	10:20	12:20		Convention Center	eLightning Theater II			Earth Processes
EP52D	●	Close-Range Remote Sensing of Nearshore Processes and Coastal Morphology II eLightning	10:20	12:20		Convention Center	eLightning Theater II	OS		Data & Emerging Technologies
EP52A	○	Advances and Challenges to Understanding Sedimentary Processes, Dynamics, and the Creation of Stratigraphic Patterns Through Integrated Studies of Sedimentary Deposits from Grain to Basin II	10:20	12:20		Convention Center	145B			Earth Processes
EP52B	○	Signatures of Climate Change in Surface Processes I	10:20	12:20		Convention Center	147A	B, C, GC, H		Climate
G52A	○	Integration of GNSS into Water Level Observation Networks: Priorities, Technologies, and Benefits II	10:20	12:20		Marriott Marquis	Marquis A-C			Data & Emerging Technologies
GC52A	○	Creating Convergence Among Academic, State, Federal, and NGO Initiatives to Enhance Sustainability and Resilience of Coastal Systems II	10:20	12:20		Convention Center	Salon A	EP, H, NH, SI		Climate
GC52B	○	The Food-Energy-Water System Nexus and Decision Support for Sustainability I	10:20	12:20		Convention Center	Salon B	A, B, H, SI		Natural Resources
GC52C	○	The Third Pole Environment (TPE) Under Global Changes II	10:20	12:20		Convention Center	Salon C	A, B, C, H		

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H52A	○	Characterization, Modeling, and Remediation of Fissured, Carbonate, and Karst Groundwater Systems I	10:20	12:20		Convention Center	156			
H52B	○	Global Floods: Forecasting, Monitoring, Risk Assessment, and Socioeconomic Response II	10:20	12:20		Convention Center	145A	NH		Extreme Events & Hazards
H52C	○	Global Precipitation Measurement, Validation, and Applications II	10:20	12:20		Convention Center	146B	A		Extreme Events & Hazards
H52D	○	Legacy Effects of Land Use on Water Quality, Watershed Processes, and Ecosystem Function: Implications for Science and Policy II	10:20	12:20		Convention Center	146A	B, EP, SI		Science & Society
H52E	○	Measuring Evapotranspiration: In Situ Approaches and Challenges I	10:20	12:20		Convention Center	154AB	A, B		Data & Emerging Technologies
H52F	○	Toward Better Water Planning and Management in an Uncertain World I	10:20	12:20		Convention Center	101			
H52G	○	Water, Energy, and Society in Urban Systems II	10:20	12:20		Convention Center	146C	A, B		Science & Society
IN52A	○	Spatial Data Infrastructure and GIS for Earth and Space Sciences: Analyzing, Visualizing, and Sharing Spatiotemporal, Cloud-Optimized Earth Science Data I	10:20	12:20		Convention Center	209A-C			Data & Emerging Technologies
IN52B	○	Tools, Recommended Practices, Evaluation Efforts, and Persistent Identifiers to Improve the Publication, Stewardship, and Impact of Research Data, Software, Workflows, Services, and Repositories I	10:20	12:20		Convention Center	206			Data & Emerging Technologies
NH52A	○	Disaster Diplomacy: Transcending Academic and National Boundaries to Reduce Disaster Risks	10:20	12:20		Marriott Marquis	Marquis 9-10			Science & Society
NH52B	○	The Collection of Natural Hazard, Exposure, and Vulnerability Data for Use in Risk Assessments and Other Novel Purposes	10:20	12:20		Marriott Marquis	Archives			Extreme Events & Hazards
NS52A	○	A Tour of Open-Source Software Packages for the Geosciences II	10:20	12:20		Marriott Marquis	Marquis 12-13			Data & Emerging Technologies
OS52A	○	Beyond Constant Eddy Diffusivities: Estimation, Implementation, Impacts, and New Approaches to the Parameterization of Lateral Mixing in Ocean Models I	10:20	12:20		Convention Center	103AB			Climate
OS52B	○	Surface Water and Ocean Topography (SWOT) Mission: Oceanography, Hydrology, and Their Interaction at the Estuaries II	10:20	12:20		Convention Center	102AB	H		Earth Processes
P52C	●	Concepts for Future Planetary Science Missions I eLightning	10:20	12:20		Convention Center	eLightning Theater I			Planetary Discovery
P52A	○	Comparative Planetology and Biosignatures from the Solar System to the Exoplanets II	10:20	12:20		Convention Center	207B	A, EP, SA, SH		Planetary Discovery
P52B	○	Revealing the Origins of our Solar System and Its Organic Compounds Through Analysis of Meteorites and Related Planetary Materials I	10:20	12:20		Convention Center	207A	V		
PA52A	○	Learning by Doing: Building Community Resilience Through Climate Assessment I	10:20	12:20		Marriott Marquis	Marquis 1-2	GC, SI		Science & Society
PA52B	○	Science to Action: Accelerating Innovation of Applied Climate Science for Risk Reduction and Resilience—A New Role for the Sustained National Climate Assessment	10:20	12:20		Marriott Marquis	Marquis 3-4			Climate
PP52A	○	Carbonate Sediments Through Time: Processes of Deposition and Diagenesis II	10:20	12:20		Convention Center	Salon I	B	IAS	Earth Processes
S52A	○	Full-Waveform Modeling and Inversion: Advances and Applications II	10:20	12:20		Marriott Marquis	Independence F-H	DI, NS, T, V		
S52B	○	Multiscale Interactions Between Foreshocks, Main Shocks, and Aftershocks: Observations and Physical Mechanisms II	10:20	12:20		Marriott Marquis	Independence E	T		Earth Processes
SA52A	○	Advances in Equatorial Thermosphere and Ionosphere Studies I	10:20	12:20		Convention Center	202B			
SM52A	○	Magnetospheres in the Outer Solar System II	10:20	12:20		Convention Center	204A-C	P		
SM52B	○	The Application Usability Level (AUL) Framework: A Standard Measure of Progress to Benefit Heliophysics Research and the Needs of Our Society	10:20	12:20		Convention Center	201	IN, SA, SH		Science & Society
T52A	○	Chronologic Constraints on the Processes and Tempos of Orogenesis Archived in Sedimentary Basins I	10:20	12:20		Marriott Marquis	Liberty M			Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
T52B	○	Seismotectonic Processes Along Active Latin American Margins: Earthquakes and Aseismic Signatures I	10:20	12:20		Marriott Marquis	Independence D			
T52C	○	Shallow Subduction Zone Structure and Dynamics II	10:20	12:20		Marriott Marquis	Liberty N-P	G, S, V		Earth Processes
T52D	○	Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere-Asthenosphere System from Crust to Transition Zone I	10:20	12:20		Marriott Marquis	Liberty L	DI, MR, S, V		
V52A	○	Glass and Stone Cavities in Minerals: Melt Inclusions at 160 Years I	10:20	12:20		Marriott Marquis	Liberty I-K			Earth Processes
V52B	○	New Insights into Oceanic Spreading Centers from Seafloor Observatories I	10:20	12:20		Marriott Marquis	Capitol/Congress	B, OS, S, T		Earth Processes

Friday, 14 December | P.M.

U53A	○	The Challenges of Recognizing Implicit Bias in Earth and Space Sciences and Strategies for Minimizing Its Impact in the Coming Decades of AGU	1:40	3:40		Convention Center	202A			Science & Society
U53B	○	American Geophysical Union Literature Review	1:40	3:40		Marriott Marquis	Marquis 12-13			
U53C	🗝	Centennial Plenary: A Celebration of the Past and Discussion of the Future of Earth and Space Science	12:30	1:30		Convention Center	Ballroom A-C			
A53A	○	Atmospheric Aerosol Processes Across Scales III	1:40	3:40		Convention Center	151A			
A53B	○	Boundary Layer Processes and Turbulence III	1:40	3:40		Convention Center	152B	B, GC, H		
A53C	○	Observations and Modeling of Air Quality at Land-Water Boundaries II	1:40	3:40		Convention Center	144A-C			
A53D	○	Polar Atmospheric Processes and Their Interactions with Land, Ice, and Ocean I	1:40	3:40		Convention Center	152A	C		Climate
A53E	○	Tropical Cyclones: Observations, Modeling, and Predictability IV	1:40	3:40		Convention Center	143A-C	NH		Extreme Events & Hazards
A53F	○	Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots III	1:40	3:40		Convention Center	151B			
A53G	●	Advances in an Integrated Global Observing System for Air Quality III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH		
A53H	●	Arctic and Midlatitude Linkage: Causes and Effects II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC		Climate
A53I	●	Arctic Energy Balance and Relevant Atmosphere and Surface Processes: Current Understanding and Challenges II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC		Climate
A53J	●	Interactions Between Land Surface, Convective Boundary Layer, Clouds, and Aerosols: Linking Observations with Models II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Earth Processes
A53K	●	Land-Atmosphere Interactions of the Tibetan Plateau and Their Impacts on Weather and Climate II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
A53L	●	Role of Ocean-Atmosphere Interaction in Regional Climate Variability and Change III Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, OS	AMS, EGU	Climate
A53M	●	The Dynamics of the Large-Scale Atmospheric Circulation in Present and Future Climates: Jet Streams, Storm Tracks, Stationary Waves, and Monsoons IV Posters	1:40	6:00		Convention Center	Hall A-C (PH)		AMS	
A53N	●	The Tropical Versus Polar "Tug of War" on the Atmospheric General Circulation Response to Climate Change II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	C, GC, OS, PP		Climate
B53A	○	Land Management in the Earth System: Measurements and Models I	1:40	3:40		Convention Center	150B	A, GC, H, SI		Science & Society
B53B	○	River Corridor Biogeochemical and Hydrologic Dynamics Across Scales I	1:40	3:40		Convention Center	150A			Soils
B53C	○	Understanding Phenological Responses and Feedbacks in Terrestrial Vegetation: Patterns, Mechanisms, and Consequences II	1:40	3:40		Convention Center	147B	GC, SI		Climate
B53D	○	Understanding the Role of Plant Hydraulics Across Scales II	1:40	3:40		Convention Center	149AB	H		
B53E	●	Biogeochemistry of Caves Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H, V		Earth Processes
B53F	●	Forensic Geology: From Crime Scene to Courtroom Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GH, PA, SI, V		Soils

Session #	Type	Session Title	Start	End	Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
B53G	●	New Insights to Soil Structure and Function: Bridging Plant, Microbe, and Mineral Constituents Using Experimentation and Multiscale Modeling Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Soils
B53H	●	From -omics to the Earth System: Bridging Scales to Improve Our Understanding of Earth System Function and Response II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	GC		Soils
B53I	●	The Importance of Episodic Events on Sediment Transport and Biogeochemical Cycling at Coastal Margins Posters	1:40	6:00	Convention Center	Hall A-C (PH)	EP, GC, OS		Extreme Events & Hazards
B53J	●	Tropical Forests Under a Changing Environment III Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Climate
B53K	●	Understanding the Biogeochemistry of Nitrogen Inputs and Outputs from Molecular to Global Scales II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	GC, OS, PP		Climate
C53A	○	Advancing Understanding of Cold Climate Hydrologic and Geomorphic Systems in a Warming Climate I	1:40	3:40	Convention Center	Salon H	A, EP, GC, H		Earth Processes
C53B	○	Forty Years of Eyes on the Planet: An Uninterrupted Record of Earth Remote Sensing with Satellite Passive Microwave Instruments I	1:40	3:40	Convention Center	Salon G			Climate
D153A	●	Diverse Perspectives on the Deep Mantle II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	MR, P, S, V		
ED53C	●	Realizing Value from Community Cyberinfrastructure for Science eLightning	1:40	3:40	Convention Center	eLightning Theater I			Data & Emerging Technologies
ED53A	○	Building Community Resilience Through Education and Public Engagement: Linking Theory to Practice II	1:40	3:40	Marriott Marquis	Marquis 7-8	GC, NH, PA, SI		Science & Society
ED53B	○	Building Stronger Communities in Academia for Effective Education and Outreach II	1:40	3:40	Marriott Marquis	Marquis 1-2		NAGT-GER	
ED53D	●	Connecting the World to the Poles Through Science Communication, Education, and Outreach II Posters	1:40	6:00	Convention Center	Hall A-C (PH)	C		Climate
ED53E	●	Educating the Next Generation of Scientists: Interdisciplinary Education Bridging Geoscience and Data Science II Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Data & Emerging Technologies
ED53F	●	Narrative as Pedagogy: Using Science Storytelling in Earth and Space Science Teaching II Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Science & Society
EP53B	●	Modeling Earth Surface Processes Using Computational Fluid Dynamics Across Scales I eLightning	1:40	3:40	Convention Center	eLightning Theater II	H, NH, OS		Earth Processes
EP53C	●	Utilizing Commercial Earth Observing Data in Geology, Geography, and Disaster Relief I eLightning	1:40	3:40	Convention Center	eLightning Theater II			Earth Processes
EP53A	○	Interactions Between Neotectonics and Surface Processes Along Active Plate Boundaries II	1:40	3:40	Convention Center	147A	T		Earth Processes
EP53D	●	Advances and Challenges to Understanding Sedimentary Processes, Dynamics, and the Creation of Stratigraphic Patterns Through Integrated Studies of Sedimentary Deposits from Grain to Basin III Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Earth Processes
EP53E	●	Earth and Planetary Surface Processes General Contributions Posters	1:40	6:00	Convention Center	Hall A-C (PH)	G, H, NH, P		Earth Processes
EP53F	●	Signatures of Climate Change in Surface Processes Posters	1:40	6:00	Convention Center	Hall A-C (PH)	B, C, GC		Climate
G53A	○	Earth Science Research and Change Detection Using Multitemporal Lidar and SfM II	1:40	3:40	Marriott Marquis	Independence D	EP		Earth Processes
G53B	○	Hydrogeophysics from Local to Global Scales II	1:40	3:40	Marriott Marquis	Marquis A-C	H, S		
GC53A	○	Causes, Consequences, and Predictability of Polar Change I	1:40	3:40	Convention Center	Salon C	A, C, H, OS		Climate
GC53B	○	Dynamic Coastal Systems: Human-Landscape Interactions Under Changing Environmental Conditions I	1:40	3:40	Convention Center	Salon A	EP, SI		Climate
GC53C	○	Energy-Water-Land Systems Under Climate Variability and Change I	1:40	3:40	Convention Center	Salon B			Science & Society
GC53D	●	Creating Convergence Among Academic, State, Federal, and NGO Initiatives to Enhance Sustainability and Resilience of Coastal Systems Posters	1:40	6:00	Convention Center	Hall A-C (PH)	EP, H, NH, SI		Climate
GC53E	●	Assessment of Climate Change Influence on Water Quality in the Chesapeake and Other Coastal Systems Posters	1:40	6:00	Convention Center	Hall A-C (PH)			Climate

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
GC53F	●	The Food–Energy–Water System Nexus and Decision Support for Sustainability Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B, H, SI		Natural Resources
GC53G	●	Toward Better Understanding of the Impacts of Climate Variability on Agricultural Decision-Making and Longer-Term Adaptation Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, H, SI		
H53A	○	Coupled Processes in Fractured Media Across Scales: Experimental and Modeling Advances I	1:40	3:40		Convention Center	156			
H53B	○	Evapotranspiration: Advances in Remote Sensing–Based Estimation, Mapping, and Evaluation I	1:40	3:40		Convention Center	154AB	B, EP, GC, IN		
H53C	○	Global Precipitation Measurement, Validation, and Applications III	1:40	3:40		Convention Center	146B	A		Extreme Events & Hazards
H53D	○	Hydrology, Society, and Environmental Change: Human–Water Interactions Across Scales I	1:40	3:40		Convention Center	145B	GC, NH		Science & Society
H53E	○	Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes I	1:40	3:40		Convention Center	145A			Science & Society
H53F	○	Urban Flooding: Data, Modeling, Rainfall, and Impacts I	1:40	3:40		Convention Center	146C	A		Extreme Events & Hazards
H53G	○	Water Quality and Watersheds: From Scientific Innovations to Actions I	1:40	3:40		Convention Center	146A	B		
H53H	●	A Second Generation of Isotopic, Trace Element, and Noble Gas Tracers of Hydrologic Processes Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H53I	●	Advances in Characterizing NAPL Sources in Groundwater and Assessing Impacts on Plume-Scale Contamination: Theoretical, Experimental, and Modeling Investigations Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B		Soils
H53J	●	Advancing Toward a National Soil Moisture Network Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Soils
H53K	●	Approaches and Outcomes for Water Security: Multidisciplinary Approaches to Enhance Water Security in Sub-Saharan Africa Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, GH, SI		Science & Society
H53L	●	Characterization, Modeling, and Remediation of Fissured, Carbonate, and Karst Groundwater Systems Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
H53M	●	Data Integration, Inverse Methods, and Data Valuation Across a Range of Scales in Hydrogeophysics Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NS		
H53N	●	Legacy Effects of Land Use on Water Quality, Watershed Processes, and Ecosystem Function: Implications for Science and Policy Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, EP, SI		Science & Society
H53O	●	Measuring Evapotranspiration: In Situ Approaches and Challenges Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, B		Data & Emerging Technologies
H53P	●	Sensor Networks in Hydrology II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH		Data & Emerging Technologies
H53Q	●	Toward Better Water Planning and Management in an Uncertain World II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
IN53A	○	Enabling Transparency and Reproducibility in Geoscience Through Practical Provenance and Cloud-Based Workflows I	1:40	3:40		Convention Center	209A-C			Data & Emerging Technologies
IN53B	○	Transforming Earth and Planetary Science with Mixed Reality and Innovative Visualization Solutions	1:40	3:40		Marriott Marquis	Marquis 9-10	A, H, OS, P		Data & Emerging Technologies
IN53C	●	Developing Innovative Tools and Services to Enable Data Discovery and Use of Big Data Variety Across Broad User Communities Posters	1:40	6:00		Convention Center	Hall A-C (PH)	ED		Data & Emerging Technologies
IN53D	●	Spatial Data Infrastructure and GIS for Earth and Space Sciences: Analyzing, Visualizing, and Sharing Spatiotemporal, Cloud-Optimized Earth Science Data Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
IN53E	●	Tools, Recommended Practices, Evaluation Efforts, and Persistent Identifiers to Improve the Publication, Stewardship, and Impact of Research Data, Software, Workflows, Services, and Repositories II Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies
MR53A	●	Rock–Fluid Interactions in Carbon Utilization and Storage II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		
NH53A	○	Predicting Extreme Events to Build Resilience to Natural Hazards	1:40	3:40		Marriott Marquis	Archives	EP, H, OS, SH		Extreme Events & Hazards
NS53A	●	A Tour of Open-Source Software Packages for the Geosciences Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Data & Emerging Technologies

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
OS53A	●	Coastal Response to Extreme Events: Fidelity of Model Predictions of Surge, Inundation, and Morphodynamics I	1:40	3:40		Convention Center	102AB	GC, NH		Extreme Events & Hazards
OS53B	○	Unprecedented Bering Sea Ice Extent and Impacts to Marine Ecosystems and Western Alaskan Communities I	1:40	3:40		Convention Center	101	C, GH		Climate
OS53C	●	Surface Water and Ocean Topography (SWOT) Mission: Oceanography, Hydrology, and Their Interaction at the Estuaries Posters	1:40	6:00		Convention Center	Hall A-C (PH)	H		Earth Processes
OS53D	●	Beyond Constant Eddy Diffusivities: Estimation, Implementation, Impacts, and New Approaches to the Parameterization of Lateral Mixing in Ocean Models Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
P53A	○	Balloons in Earth and Planetary Sciences: Research, Applications, and Emerging Concepts II	1:40	3:40		Convention Center	207A	A, EP, NS, S		Data & Emerging Technologies
P53B	○	Characterizing Regolith and Subsurface Volatiles on Icy and Rocky Bodies II	1:40	3:40		Convention Center	206	EP		Planetary Discovery
P53C	●	Icarus Worlds: Exploring Hot Exoplanets and Planetary Satellites from Their Interiors to Their Exospheres II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, EP, NS, V		Planetary Discovery
P53D	●	Mitigation and Consequences of Asteroid Impacts II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	EP, MR, NH, SI		Extreme Events & Hazards
P53E	●	Planetary Rings, Meteoroid and Dust Populations, and Effects II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	NH, SA, SH		
P53F	●	Planetary Science General Contributions I Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
P53G	●	Revealing the Origins of Our Solar System and Its Organic Compounds Through Analysis of Meteorites and Related Planetary Materials II Posters	1:40	6:00		Convention Center	Hall A-C (PH)	V		
PA53A	○	Native Science to Action: How Indigenous Perspectives Inform, Diversify, and Build Capacity in Environmental Science and Policy I	1:40	3:40		Marriott Marquis	Marquis 3-4	GC, GH, H		Science & Society
PA53B	●	Learning by Doing: Building Community Resilience Through Climate Assessment Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, SI		Science & Society
PA53C	●	Science to Action: How Hydrologists and Residents Can Work Together to Reduce the Impact of Flooding Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GC, H, NH, OS		Science & Society
PP53A	○	Evolution of the Earth System II	1:40	3:40		Convention Center	103AB	A, B, P, V		Earth Processes
PP53B	○	The K-Pg Mass Extinction and the Chicxulub Impact Crater I	1:40	3:40		Convention Center	Salon I	P		Climate
PP53C	●	Astronomical Forcing of Past Climates Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP53D	●	Cyclostratigraphy and Astrochronology in Deep Time Posters	1:40	6:00		Convention Center	Hall A-C (PH)	GP, NG		
PP53E	●	Proterozoic Snowball Earth Events Posters	1:40	6:00		Convention Center	Hall A-C (PH)			Climate
PP53F	●	Evolution of the Marine Silica Cycle Posters	1:40	6:00		Convention Center	Hall A-C (PH)	B, OS		Climate
S53A	○	On the Symbiosis Between Fundamental and Exploration Geophysics I	1:40	3:40		Marriott Marquis	Independence F-H	GP, MR, NG, NS	JpGU	
S53B	○	Seismology Contributions: Earthquake Ground Motions and Engineering Seismology I	1:40	3:40		Marriott Marquis	Independence E			
S53C	●	Full-Waveform Modeling and Inversion: Advances and Applications Posters	1:40	6:00		Convention Center	Hall A-C (PH)	DI, GP, NS, T		
S53D	●	Infrasonic and Seismoacoustic Analysis for Global Security Posters	1:40	6:00		Convention Center	Hall A-C (PH)			
S53E	●	Recent Progress in Nuclear Test Monitoring Capability Posters	1:40	6:00		Convention Center	Hall A-C (PH)	A, NS, PA		Science & Society
SA53A	○	Advances in Equatorial Thermosphere and Ionosphere Studies II	1:40	3:40		Convention Center	202B			
SH53A	○	Fundamental Physics of the Solar Corona and Inner Heliosphere II	1:40	3:40		Convention Center	204A-C			
SH53B	○	Large-Scale Interplanetary Structures and Their Space Weather Effects II	1:40	3:40		Convention Center	207B			
SM53A	○	Quantifying Uncertainty in Space Weather Modeling and Forecasting II	1:40	3:40		Convention Center	201			
T53A	○	Mountain Building in Collisional and Cordilleran Orogenic Systems I	1:40	3:40		Marriott Marquis	Liberty M	EP, G, S, V		Earth Processes

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
T53B	○	Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere–Asthenosphere System from Crust to Transition Zone II	1:40	3:40		Marriott Marquis	Liberty L	DI, MR, S, V		
T53C	○	Subduction Zone Processes at the Hikurangi Margin, New Zealand I	1:40	3:40		Marriott Marquis	Liberty N-P	G, NH, S		Extreme Events & Hazards
V53A	○	A Perfect Match: Bringing Together Models of Geodynamics and Thermodynamics to Understand Geochemical and Petrological Observations I	1:40	3:40		Marriott Marquis	Liberty I-K	DI, T		
V53B	○	Continental Intraplate Magmas: Their Origins and Significance Interpreted from Multidisciplinary Studies I	1:40	3:40		Marriott Marquis	Capitol/Congress	NH, P, S, T		Earth Processes
U54A	○	Why American Geophysical Union Scientists Study the Earth and Space	4:00	6:00		Convention Center	202A			Science & Society
A54H	●	Mesoscale and Severe Convective Storms: Understanding, and Model Development and Evaluation III eLightning	4:00	6:00		Convention Center	eLightning Theater II	NH		Extreme Events & Hazards
A54A	○	Atmospheric Aerosol Processes Across Scales IV	4:00	6:00		Convention Center	151A			
A54B	○	Boundary Layer Processes and Turbulence IV	4:00	6:00		Convention Center	152B	B, GC, H		
A54C	○	Climate Variability and Ocean–Atmosphere Interaction over the North Atlantic II	4:00	6:00		Convention Center	152A	C, GC, OS, PP		Climate
A54D	○	Observations and Modeling of Air Quality at Land–Water Boundaries III	4:00	6:00		Convention Center	144A-C			
A54E	○	Stratosphere–Troposphere Coupling: Large-Scale Atmospheric Dynamics and Transport II	4:00	6:00		Convention Center	150B			Climate
A54F	○	Tropical Cyclones: Observations, Modeling, and Predictability V	4:00	6:00		Convention Center	143A-C	NH		Extreme Events & Hazards
A54G	○	Understanding and Attributing Greenhouse Gas Fluxes from Urban Systems and Major Hot Spots IV	4:00	6:00		Convention Center	151B			
B54A	○	Emergent Behavior in the Terrestrial Carbon Cycle II	4:00	6:00		Convention Center	150A	A, GC, H		Climate
B54B	○	Mercury Biogeochemistry and Environmental Change I	4:00	6:00		Convention Center	149AB	A, GC, GH, SI		
B54C	○	Understanding Phenological Responses and Feedbacks in Terrestrial Vegetation: Patterns, Mechanisms, and Consequences III	4:00	6:00		Convention Center	147B	GC, SI		Climate
C54A	○	Advancing Understanding of Cold Climate Hydrologic and Geomorphic Systems in a Warming Climate II	4:00	6:00		Convention Center	Salon H	A, EP, GC, H		Earth Processes
ED54A	○	Citizen Science Showcase: Strategies to Engage Citizens and Students in Research II	4:00	6:00		Marriott Marquis	Marquis 7-8	PA, SI, SM		Data & Emerging Technologies
ED54B	○	Implementing and Sustaining Active Learning Strategies in the College Classroom II	4:00	6:00		Marriott Marquis	Marquis 9-10			
EP54B	●	Close-Range Remote Sensing of Nearshore Processes and Coastal Morphology I eLightning	4:00	6:00		Convention Center	eLightning Theater II	OS		Data & Emerging Technologies
EP54A	○	Interactions Between Neotectonics and Surface Processes Along Active Plate Boundaries III	4:00	6:00		Convention Center	147A	T		Earth Processes
G54A	○	An Ongoing Transformation: High-Resolution Topography in the Geosciences II	4:00	6:00		Marriott Marquis	Independence D	C, EP, NH, OS		Data & Emerging Technologies
G54B	○	Gravity Field Determination: Acquisition, Processing, and Geodetic Applications of Terrestrial, Marine, and Airborne Gravity Data II	4:00	6:00		Marriott Marquis	Marquis A-C	NS		Data & Emerging Technologies
GC54A	○	Observed and Projected Climate Change Impacts on Water Resources, Agriculture, and Health I	4:00	6:00		Convention Center	Salon B	GH, H, NH, SI		Climate
GC54B	○	The Global Water Cycle: Linkages of Ocean Salinity with the Atmosphere and Terrestrial Hydrology I	4:00	6:00		Convention Center	Salon A	A, C, H, OS		Climate
GC54C	○	The Third Pole Environment (TPE) Under Global Changes III	4:00	6:00		Convention Center	Salon C	A, B, C, H		
H54A	○	Computational Methods and Tools for Model–Data Integration I	4:00	6:00		Convention Center	154AB			Data & Emerging Technologies
H54B	○	Global Precipitation Measurement, Validation, and Applications IV	4:00	6:00		Convention Center	146B	A		Extreme Events & Hazards
H54C	○	Hydrology, Society, and Environmental Change: Human–Water Interactions Across Scales II	4:00	6:00		Convention Center	145B	GC, NH		Science & Society

Session #	Type	Session Title	Start	End		Venue	Room	Cross Listings	Co-Sponsors	SWIRL Topic
H54D	○	New Tools, Methods, and Case Studies to Support Communities in Adopting Green Infrastructure to Manage Storm Water I	4:00	6:00		Convention Center	146C	GC		Science & Society
H54E	○	Remote Sensing Applications for Water Resources Management, Including Droughts, Floods, and Associated Water Cycle Extremes II	4:00	6:00		Convention Center	145A			Science & Society
H54F	○	Water and Society: Modeling Tools, Communication Channels, and Stakeholder Engagement to Inform Public Policy II	4:00	6:00		Convention Center	101	SI		Science & Society
H54G	○	Water Quality and Watersheds: From Scientific Innovations to Actions II	4:00	6:00		Convention Center	146A	B		
IN54A	○	Enabling Cloud Applications for Earth Science Data I	4:00	6:00		Convention Center	209A-C			Data & Emerging Technologies
OS54A	○	Geological and Geophysical Characterization of Marine Gas Hydrate Reservoirs I	4:00	6:00		Convention Center	103AB	EP		Natural Resources
OS54B	○	Improved Observational and Modeling Skills to Understand the Hurricane and Winter Storm Induced Surge and Meteotsunami I	4:00	6:00		Convention Center	102AB			Extreme Events & Hazards
P54D	●	Concepts for Future Planetary Science Missions II eLightning	4:00	6:00		Convention Center	eLightning Theater I			Planetary Discovery
P54A	○	Climate and Habitability of Rocky Planets in the Solar System and Beyond II	4:00	6:00		Convention Center	206	A, B, EP, PP		Planetary Discovery
P54B	○	Geology and Geophysics of Planetary Surfaces and Interiors: Methods, Modeling, and Missions II	4:00	6:00		Convention Center	207B			Planetary Discovery
P54C	○	Space Environments of Unmagnetized or Weakly Magnetized Solar System Bodies and the Effects of Space Weather on These Systems II	4:00	6:00		Convention Center	207A			
PA54A	○	Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations I	4:00	6:00		Marriott Marquis	Marquis 3-4	B, GH, NH		Science & Society
PA54B	○	International Science Addressing Global Agenda 2030	4:00	6:00		Marriott Marquis	Marquis 1-2			
PP54A	○	Carbonate Sediments Through Time: Processes of Deposition and Diagenesis III	4:00	6:00		Convention Center	Salon G	B	IAS	Earth Processes
PP54B	○	The K-Pg Mass Extinction and the Chicxulub Impact Crater II	4:00	6:00		Convention Center	Salon I	P		Climate
S54A	○	Geophysical Monitoring for Geologic Carbon Utilization and Storage I	4:00	6:00		Marriott Marquis	Independence F-H			
S54B	○	Seismology Contributions: Earthquake Ground Motions and Engineering Seismology II	4:00	6:00		Marriott Marquis	Independence E			
SH54A	○	Fundamental Physics of the Solar Corona and Inner Heliosphere III	4:00	6:00		Convention Center	204A-C			
SM54A	○	Machine Learning in Space Weather II	4:00	6:00		Convention Center	201	SA, SH		Data & Emerging Technologies
T54A	○	Mountain Building in Collisional and Cordilleran Orogenic Systems II	4:00	6:00		Marriott Marquis	Liberty M	EP, G, S, V		Earth Processes
T54B	○	Structure and Dynamics of the Upper Mantle: Characterizing the Lithosphere-Asthenosphere System from Crust to Transition Zone III	4:00	6:00		Marriott Marquis	Liberty L	DI, MR, S, V		
T54C	○	Subduction Zone Processes at the Hikurangi Margin, New Zealand II	4:00	6:00		Marriott Marquis	Liberty N-P	G, NH, S		Extreme Events & Hazards
V54A	○	Quantitative Volcanic Hazard Assessment and Uncertainty Analysis in Satellite Remote Sensing and Modeling I	4:00	6:00		Marriott Marquis	Liberty I-K			Extreme Events & Hazards



SCIENCE **STANDS** FOR

Fill in your answer