



LOUISIANA STATE UNIVERSITY

## **2018 AGU Fall Meeting Presenters**

LSU faculty, students, post-doctoral researchers, and staff are presenting more than 80 talks, posters, and events that span the Earth, sea, and space sciences.

For more information, visit the LSU booth #1640 or [lsu.edu](http://lsu.edu). Follow us on Twitter @LSU & @LSUResearch.

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
-------	-----	----------------	---------------------------------	--------	-------------------

MONDAY, DEC. 10

8:00 AM	12:20 PM	Edward Collier	GEONEX: Progressive Conditional Generative Adversarial Training Using Transfer Learning	Poster Hall A-C	IN049
8:00 AM	12:20 PM	Justin Kain	New Technology and Methods for Characterizing the Seismic Hazard and Active Hydrothermal System Beneath Lipari Island, Italy	Poster Hall A-C	PP11B-1034
8:00 AM	12:20 PM	Rasheed Ajala	Teleseismic Receiver Functions Constraint on the Structure of the Indo-Burma Subduction System	Poster Hall A-C	T043
8:00 AM	12:20 PM	Deborah Loke	240-Year Record of Sr/Ca and Ba/Ca from a Coral Off Central Vietnam Reveals Impacts of Monsoonal Upwelling and La Nina Rains	Poster Hall A-C	PP11D-1017
11:20 AM	11:35 AM	John White	Impact of a Temporally Displaced Mississippi River Spring Flood on Nutrient and Aquatic Ecosystem Responses in Estuarine Waters: A Hydrologic Harbinger of a Shifting Climatic Future Affecting Coastal Food Webs	Room 101	H026
1:40 PM	6:00 PM	Edward Pritchard	Implications of Borehole-Derived Stress Constraints for Fault Slip and Stress Heterogeneity Beneath the Santa Barbara Channel, Offshore Southern California	Poster Hall A-C	T024
1:40 PM	6:00 PM	Madeline Myers	A Decade of Spatiotemporal Variability of Snow Persistence in Taylor Valley, East Antarctica from Object-Based Classification of High Resolution Satellite Imagery	Poster Hall A-C	C034
1:40 PM	6:00 PM	Michael Polito	Penguins as Paleo-Climate Proxies: Radiocarbon Dating Indicates a Late Holocene, North-to-South, Penguin Colonization in the Northern Antarctic Peninsula.	Poster Hall A-C	PP033
1:40 PM	6:00 PM	Patricia Persaud	Structure of the Northern Los Angeles Basins Revealed in Teleseismic Receiver Functions from Short-Term Nodal Seismic Arrays	Poster Hall A-C	S029
1:40 PM	6:00 PM	Sahar Haddadian	Sediment Transport Due to Wave- and Current-Supported Turbidity Currents Over Erodible Bed	Poster Hall A-C	OS042
2:45 PM	2:58 PM	Heidi Fuqua Haviland	Multidisciplinary Approach to Constraining Present-Day Internal Structure of the Moon with Implications for the Evolution of the Lunar Interior	Room 207A	P019
4:40 PM	4:50 PM	Volodymyr Mihunov	Emerging Disparities in Community Resilience to Drought Hazard in South-Central United States	Mariott Marquis 1-2	PA036
5:45 PM	6:00 PM	Ali Reza Payandeh	Low Frequency Sea Level Variability in a Deltaic Mississippi River Estuary During Cold Front Season	Room 103AB	OS031

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
-------	-----	----------------	---------------------------------	--------	-------------------

TUESDAY, DEC. 11

8:00 AM	12:20 PM	Adam Forte	Criteria and Tools for Determining Drainage Divide Stability	Poster Hall A-C	EP009
8:00 AM	12:20 PM	Elliott Helgans	Multicomponent Model of Crustal Stress at Cajon Pass with Implications for Stress Field Heterogeneity	Poster Hall A-C	S016
8:00 AM	12:20 PM	Holly Kelchner	Spatial Analysis of Plankton Community and Nutrients in Coastal Environment of Mozambique	Poster Hall A-C	OS014
8:00 AM	12:20 PM	Jina Yin	Bayesian Chance-Constrained Saltwater Scavenging Design for Deep Aquifers Under Surrogate Uncertainty	Poster Hall A-C	H028
1:40 PM	6:00 PM	An Li	Integrated Modeling of Stratigraphy and Groundwater Flow for Lower Mississippi River Delta Plain	Poster Hall A-C	EP007
1:40 PM	6:00 PM	Dipendra Banjara	Simulation and Visualization of the Incorporation of Carbon and Hydrogen in Silicate Melt	Poster Hall A-C	MR023
1:40 PM	6:00 PM	James Smith	Evaluating Sediment Transport in an Ungauged Steep Mountain Stream During an Extreme Flood Event	Poster Hall A-C	EP021
1:40 PM	6:00 PM	Kendall Valentine	Wind-Driven Water Level Fluctuations Drive Marsh-Edge Erosion Patterns in Microtidal Coastal Bays	Poster Hall A-C	EP007
1:40 PM	6:00 PM	Mary Grace Lemon	Source Water Variability to Soils of Large, Forested Floodplains	Poster Hall A-C	H115
2:00 PM	2:45 PM	Michael Polito	Penguins! From Space Press Conference	Marriott Marquis Room Shaw/LeDroit	
2:10 PM	2:25 PM	Alexandra Christensen	Effect of Connectivity and Residence Time on the Fate of Nitrate in a Coastal Deltaic Floodplain	Room 145B	EP034
3:25 PM	3:40 PM	Samuel Bentley	Overbank Sediment Capture in the Upper Delta Plain of the Mississippi River	Room 145B	EP034
4:00 PM	4:15 PM	Guangsheng Zhuang	Microbial and Geochronologic Constraints on the Neogene Paleotopography of Northern Tibetan Platea	Salon G	PP007
5:00 PM	5:15 PM	Peter Clift	Climate-Tectonic Feedbacks in the Cenozoic Western Himalaya	Salon I	PP044
5:45 PM	6:00 PM	Michael Cherry	The TETRA-II Experiment to Observe Terrestrial Gamma Flashes at Ground Level – Results from First Two Years of Observation	Room 201	AE001

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
-------	-----	----------------	---------------------------------	--------	-------------------

WEDNESDAY, DEC. 12

8:00 AM	12:20 PM	Kory Konsoer (Primary Convener)	Fluvial Morphodynamics, Channel Patterns, and Beyond I & II	Room 147A	EP31A, EP32A
8:00 AM	12:20 PM	George Voyiadjis	Numerical Modeling of Frictional Contact Between A Blunt Tool and Quasi-Brittle Rock	Poster Hall A-C	MR018
8:00 AM	12:20 PM	Jack Cadigan	Geotechnical Characterization of Mississippi River Delta Front Sediments	Poster Hall A-C	EP034
8:00 AM	12:20 PM	Linlin Cui	Lateral Circulation in a Partially Stratified Tidal Inlet	Poster Hall A-C	OS031
8:00 AM	12:20 PM	Minghao Wu	Understanding the Impact of Global Cooling and the Uplift of the Northern Tibetan Plateau on the Climate and Ecology in Central Asia with Leaf Wax N-Alkane $\delta$ D and $\delta$ 13C records	Poster Hall A-C	PP007
8:00 AM	12:20 PM	Song Li	Benthic Fluxes Across Different Hydrogeomorphic Zones in an Emergent Coastal Deltaic Floodplain	Poster Hall A-C	EP034
8:00 AM	12:20 PM	Sulav Dhakal	Reservoir Simulations for Comparative Hydrate Formation Study Across Different Sites in the Gulf of Mexico	Poster Hall A-C	OS030
8:00 AM	12:20 PM	Ye-Hong Chen	Mississippi River Levee Underseepage Assessment, North of Baton Rouge, Louisiana	Poster Hall A-C	NS007
12:05 PM	12:20 PM	Matthew Hiatt	Geometry and Topology of Estuary and Braided River Channel Networks Extracted from Topographic Data	Room 147A	EP015
1:40 PM	6:00 PM	Kory Konsoer (Primary Convener)	Fluvial Morphodynamics, Channel Patterns, and Beyond	Poster Hall A-C	EP33D
1:40 PM	6:00 PM	Aaron Ryan	Development of Balloon Borne Gamma for Use in Correlation Of Terrestrial Gamma Flashes, Electric Fields, and Lightning Strikes (COTEL) Project.	Poster Hall A-C	AE001
1:40 PM	6:00 PM	Bijaya Karki	Thermodynamics, Structure, and Transport Properties of the MgO-Al2O3 Liquid System	Poster Hall A-C	MR009
1:40 PM	6:00 PM	Dipta Ghosh	Fe-bearing MgSiO3 melt: a First Principles Molecular Dynamics study	Poster Hall A-C	MR024
1:40 PM	6:00 PM	Donald Pleshinger	The TETRA-II Experiment to Observe Terrestrial Gamma Flashes at Ground Level — Instrumentation and Results	Poster Hall A-C	AE001
1:40 PM	6:00 PM	Taylor Rowley	Evaluating Interactions Between Flow Structure and Planform Evolution on a Series of Six Consecutive Meander Bends Along the Pearl River, Louisiana	Poster Hall A-C	EP015

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
-------	-----	----------------	---------------------------------	--------	-------------------

5:00 PM	5:15 PM	Songjie He	Sources and Fate of Carbon and Nutrients from Land to Sea: Land Use and Hydrological Impacts on Water C:N:P Ratios along an Estuarine River with a Large Salinity Gradient	Room 149AB	B040
---------	---------	------------	--	------------	------

THURSDAY, DEC. 13

8:00 AM	12:20 PM	Giulio Mariotti	Soil Creep in a New England Salt Marsh: Fast, Seasonal, and Likely Mediated by Vegetation	Poster Hall A-C	EP046
8:00 AM	12:20 PM	Ryder Myers	Sediment Accumulation and Bioturbation in a Tropical-Carbonate Mangrove Forest on a Pacific atoll: Ouvéa, New Caledonia	Poster Hall A-C	PP008
8:00 AM	12:20 PM	Siena Collier	Analysis of Varying Seismic Velocities in Sands of Different Grain Sizes	Poster Hall A-C	NS012
9:45 AM	10:00 AM	Cheng Shi	Effects of Emission and Climate Change on Atmospheric Deposition of Nitrogen and Sulfur in China	Room 151B	A019
10:50 AM	11:05 AM	Giulio Mariotti	Simulating Coastal Evolution from Decades to Millennia	Marriott Marquis 9-10	NH025
11:35 AM	11:50 AM	Zhiqiang Deng	Effects of Digital Elevation Model Resampling on HSPF-Based Watershed-Scale Nutrient Modeling	Room 154AB	H015
1:40 PM	6:00 PM	Gary King	Comparative Analysis of Anaerobic Carbon Monoxide Oxidation in Saline and Non-saline Soils and Sediments at Ambient and Elevated Temperatures	Poster Hall A-C	B049
1:40 PM	6:00 PM	Hao Guo	Effects of Climate Change and Emission Scenarios on Air Pollution in India	Poster Hall A-C	A019
1:40 PM	6:00 PM	Jacob Warner	Local Perspectives on ENSO Variability ~2300 BP and Now: Evidence from Two Short-Lived Intertidal Bivalves Mesodesma Donacium and Donax Obesusulus	Poster Hall A-C	PP029
1:40 PM	6:00 PM	Kaiyu Chen	Simulation, Source Contribution and Health Effects of High Ozone Episodes in North China Plain	Poster Hall A-C	A019
1:40 PM	6:00 PM	Kristine DeLong	Building a Cross-Dated Sea Surface Temperature Reconstruction for the Central Caribbean from Storm Deposit Corals	Poster Hall A-C	PP010
1:40 PM	6:00 PM	Neha Ghaisas	Temporal and Spatial Distribution of Iron Bound Organic Carbon in the Mississippi River Influenced Shelf Sediments	Poster Hall A-C	B020
1:40 PM	6:00 PM	Pengfei Wang	Modeling of PM2.5 and O3 with WRF/Chem Over Sichuan Basin, Southwestern China	Poster Hall A-C	A019
5:00 PM	5:15 PM	Hope Asala	3D Finite Element Sub-Modeling of Fluid-Driven Interface De-bonding after Well Plugging and Abandonment	Marriott Marquis Capital/ Congress	MR007

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
FRIDAY, DEC. 14					
8:00 AM	12:20 PM	Andreas Michael	Fluid-Driven Fracture Initiation During Loss of Control Situations	Poster Hall A-C	MR007
8:00 AM	12:20 PM	Cuiling Liu	Using Standardized Soil Moisture Index for Drought Warning by Fusing SMAP Observations and NLDAS Noah Land Surface Model	Poster Hall A-C	H110
8:00 AM	10:00 AM	Denise DeLorme	Northern Gulf of Mexico Stakeholders' Considerations of Natural and Nature-Based Infrastructure Options for Coastal Hazard Mitigation	Salon A	GC028
8:00 AM	8:15 AM	Scott C. Hagen	Can the Process of Numerical Model Development and Implementation Form a Convergence of Research Efforts?	Salon A	GC028
8:00 AM	12:20 PM	Temitope Ajayi	Geochemical Considerations for Gulf of Mexico Wellbore Integrity Predictions.	Poster Hall A-C	MR007
8:00 AM	12:20 PM	Wei Huang	Storm Surge and Circulation in Wax Lake Delta – Numerical Experiments for Winter Storms	Poster Hall A-C	OS023
9:00 AM	9:15 AM	Margaret Reams	Examining Social Media Use by Public Agencies and NGOs involved in Coastal Emergency Management: Experiences from Hurricanes Sandy, Isaac, and Harvey	Salon A	GC028
10:50 AM	11:05 AM	Kanchan Maiti	Impact of Named Tropical Storms on Sediment Transport and Coastal Biogeochemistry along the Louisiana-Texas Shelf in the Northern Gulf of Mexico	Room 149AB	B079
11:00 AM	11:05 AM	Juan Lorenzo	L_SU (V 0.3.2)- a Graphical User Interface Useful for Building Seismic Flows from Seismic Unix	Marriott Marquis 12-13	NS004
11:20 AM	11:35 AM	Robert Twilley	DELTA SEES: Sustainability of Deltaic Coastlines	Salon A	GC028
11:35 AM	11:50 AM	Christopher Siverd	Assessment of the Evolution of Coastal Louisiana Storm Surge and Flood Risk 1850 – 2110	Salon A	GC028
11:35 AM	11:50 AM	Kehui Xu	Sediment Transport and Water Quality of a Dredge Pit on Louisiana Shelf for Coastal Restoration	Room 149AB	B079
12:05 PM	12:20 PM	Carol Wilson	Is the Ganges-Brahmaputra Delta Drowning? Elevation and Sediment Dynamics in the Natural and Human Altered Tidal Deltaplain	Salon A	GC028
1:40 PM	6:00 PM	Felix Santiago-Collazo	Compound Inundation Models in Low-Lying Coastal Watersheds	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Haoran Liu	Sediment Transport and Geomorphologic Response in Multiple Dredge Pits Near Ship Shoal of Coastal Louisiana	Poster Hall A-C	B079
1:40 PM	6:00 PM	Juan Lorenzo	L_SU (V 0.3.2)- a Graphical User Interface Useful for Building Seismic Flows from Seismic Unix	Poster Hall A-C	NS004

START	END	LSU RESEARCHER	PRESENTATION OR POSTER ABSTRACT	ROOM #	SESSION- PAPER
1:40 PM	6:00 PM	Leslie Valentine	Sediment Accretion and Erosion in Poldered and Non-Poldered Regions within the Ganges-Brahmaputra-Meghna Delta, Bangladesh: Implications for River Channel Migration and Flood Risk	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Madeline Foster-Martinez	Tools for Communicating Indirect Effects of Sea-Level Rise: Case Study of Wave Attenuation	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Matthew V. Bilskie	The Evolution of Flood Zones in Southeastern Louisiana	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Mingqiu Hou	Wet Climate in Qaidam Basin during the Last Glacial Period	Poster Hall A-C	EP039
1:40 PM	6:00 PM	Ryan Lauve	Coastal Digital Elevation Models: Are They Correct? How Can We do Better?	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Shu Gao	Increasing Resilience to Current and Future Flooding Through the Integration of Hydrologic and Storm Surge Models	Poster Hall A-C	GC028
1:40 PM	6:00 PM	Yaping Xu	Stepwise Downscaling of SMAP Satellite Soil Moisture Data Using Random Forests and Spatial Statistic Models	Poster Hall A-C	H019
1:40 PM	6:00 PM	Yongbo Peng	The Timeline of Events Aftermath of Marinoan Glacial Meltdown	Poster Hall A-C	PP031
2:25 PM	2:40 PM	Nina Lam	Understanding the Mississippi River Delta as a Coupled Natural-Human System: Research Methods, Challenges, and Prospects	Salon A	GC030
2:55 PM	3:10 PM	Chunyan Li	Influence of Local and Remote Hurricanes on Circulation over Louisiana Shelf and Exchange Flows in Tidal Passes: Simulations and Observations	Room 102AB	OS009
3:10 PM	3:25 PM	Giancarlo Restrepo	Contrasting Recent Sedimentation Rates and Sediment Characteristics Between Fluvially Connected and Disconnected Distal Coastal Marshes in Southeastern Louisiana, USA.	Salon A	GC030

## LSU FACULTY CONDUCT CUTTING-EDGE RESEARCH THAT SPANS THE EARTH, SEA, AND SPACE SCIENCES.

We are at the forefront of discovery from where the land meets the sea to the deepest parts of the ocean and to the outer reaches of the universe.

LSU has roots as a land-grant university with a NASA Space Grant and a NOAA Sea Grant housed on our beautiful campus. We are located on the seventh largest delta and the fourth longest river in the world, which are living laboratories for research.

LSU students conduct groundbreaking work alongside our outstanding faculty around the world.

Be part of the excellence.

### College of Science

225-578-4200  
[lsu.edu/science](http://lsu.edu/science)

### College of the Coast & Environment

225-578-6316  
[lsu.edu/cce](http://lsu.edu/cce)

### Civil & Environmental Engineering

225-578-8442  
[cee.lsu.edu](http://cee.lsu.edu)

### Geology & Geophysics

225-578-3353  
[lsu.edu/geology](http://lsu.edu/geology)

### Geography & Anthropology

225-578-5942  
[ga.lsu.edu](http://ga.lsu.edu)

### Physics & Astronomy

225-578-2261  
[lsu.edu/physics](http://lsu.edu/physics)

### Center for Coastal Resiliency

225-578-7926  
[lsu.edu/ccr](http://lsu.edu/ccr)

### Coastal Studies Institute

225-578-2395  
[lsu.edu/csi](http://lsu.edu/csi)

### Louisiana Space Grant Consortium

225-578-8680  
[laspace.lsu.edu](http://laspace.lsu.edu)

### Office of Research & Economic Development

225-578-5833  
[lsu.edu/research](http://lsu.edu/research)

### LSU Graduate School

225-578-2311  
[lsu.edu/graduateschool](http://lsu.edu/graduateschool)