

# GSA Awards Ceremony

Sun., 4 Nov., noon–1:30 p.m.

Indiana Convention Center, Sagamore Ballroom 5



**PRESIDENT**  
Robbie Rice Gries

Please join GSA President Robbie Rice Gries and GSA President-Elect Donald I. Siegel to honor and greet the 2018 GSA Medals & Awards recipients at the Presidential Address & Awards Ceremony. You will also have the privilege of hearing Gries give her Presidential Address, “Navigating ‘Me, too’ in the Geosciences.”



**PRESIDENT-ELECT**  
Donald I. Siegel

## 2018 GSA Medal & Awards Recipients



**Kent C. Condie**



**Iain Stewart**



**Jay Quade**

### **PENROSE MEDAL**

**Kent C. Condie**, New Mexico Tech

### **PRESIDENT’S MEDAL OF THE GEOLOGICAL SOCIETY OF AMERICA**

**Iain Stewart**, University of Plymouth

### **ARTHUR L. DAY MEDAL**

**Jay Quade**, University of Arizona



**Laurel Griggs Larsen**



**Joaquin Ruiz**



**Rufus Douglas Catchings**

### **YOUNG SCIENTIST AWARD (DONATH MEDAL)**

**Laurel Griggs Larsen**, University of California Berkeley

### **GSA PUBLIC SERVICE AWARD**

**Joaquin Ruiz**, University of Arizona



**Andrea M. Balbas**



**Kristján Sæmundsson**



**Nazrul I. Khandaker**

### **RANDOLPH W. “BILL” AND CECILE T. BROMERY AWARD FOR MINORITIES**

**Rufus Douglas Catchings**, U.S. Geological Survey

### **DORIS M. CURTIS OUTSTANDING WOMAN IN SCIENCE AWARD**

**Andrea M. Balbas**, California Institute of Technology

### **GSA FLORENCE BASCOM GEOLOGIC MAPPING AWARD**

**Kristján Sæmundsson**, ISOR–Iceland GeoSurvey

### **GSA DISTINGUISHED SERVICE AWARD**

**Nazrul I. Khandaker**, York College/CUNY

**Judith Totman Parrish**, University of Idaho Geological Sciences

**Marilyn Suiter**, National Science Foundation



**Judith Totman Parrish**



**Marilyn Suiter**

### **JOHN C. FRYE AWARD**

**Ramon H. Treviño** and **Tip A. Meckel**, editors, 2017, *Geological CO<sub>2</sub> Sequestration Atlas of Miocene Strata, Offshore Texas State Waters*: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations no. 283, 74 p., <https://doi.org/10.23867/RI0283D>.

### **HONORARY FELLOWS**

**Eduardo Garzanti**, University of Milano–Bicocca

**Bishal Upreti**, University of Zambia



**Eduardo Garzanti**



**Bishal Upreti**

# 2018 GSA Division Primary Awards



## **RIP RAPP ARCHAEOLOGICAL GEOLOGY AWARD**

*Geoarchaeology Division*

**Gary Huckleberry**, University of Arizona

## **ISRAEL C. RUSSELL AWARD**

*Limnogeology Division*

**Sherilyn C. Fritz**, University of Nebraska

## **GILBERT H. CADY AWARD**

*Energy Geology Division*

**Stephen F. Greb**, Kentucky Geological Survey  
and University of Kentucky

## **DISTINGUISHED GEOLOGIC CAREER AWARD**

*Mineralogy, Geochemistry, Petrology, and Volcanology Division*

**Calvin Miller**, Vanderbilt University

## **E.B. BURWELL, JR., AWARD**

*Environmental & Engineering Geology Division*

**David S. Parks**, Washington State Department of Natural  
Resources, 2015, Bluff Recession in the Elwha and Dungeness  
Littoral Cells, Washington, USA: *Environmental and Engineering  
Geoscience*, vol. XXI, no. 2, p. 129–146.

## **G.K. GILBERT AWARD**

*Planetary Geology Division*

**Jeffrey M. Moore**, NASA Ames Research Center

## **KIRK BRYAN AWARD FOR RESEARCH EXCELLENCE**

*Quaternary Geology and Geomorphology Division*

**Karen B. Gran, Noah Finnegan, Andrea L. Johnson, Patrick  
Belmont, Chad Wittkop, and Tammy Rittenour**, 2013,  
Landscape evolution, valley excavation, and terrace development  
following abrupt postglacial base-level fall: *GSA Bulletin*, v. 125,  
no. 11/12, p. 1851–1864.

## **OUTSTANDING CONTRIBUTIONS AWARD**

*Geoinformatics Division*

**Stephen M. Richard**, Columbia University Lamont-Doherty  
Earth Observatory

## **LAURENCE L. SLOSS AWARD**

*Sedimentary Geology Division*

**Kenneth G. Miller**, Rutgers, the State University of New Jersey

## **GEORGE P. WOOLLARD AWARD**

*Geophysics and Geodynamics Division*

**Greg Hirth**, Brown University

## **CAREER CONTRIBUTION AWARD**

*Structural Geology and Tectonics Division*

**Elizabeth Miller**, Stanford University

## **BIGGS AWARD FOR EXCELLENCE IN EARTH SCIENCE TEACHING**

*Geoscience Education Division*

**Nicole LaDue**, Northern Illinois University

## **MARY C. RABBITT HISTORY OF GEOLOGY AWARD**

*History and Philosophy of Geology Division*

**William R. Brice**, University of Pittsburgh

## **O.E. MEINZER AWARD**

*Hydrogeology Division*

**Shemin Ge**, University of Colorado Boulder

## **GSA INTERNATIONAL**

### **INTERNATIONAL DISTINGUISHED CAREER AWARD**

**Peter Molnar**, University of Colorado

### **J.B. THOMPSON, JR., DISTINGUISHED INTERNATIONAL LECTURERS**

**Holly Michael**, University of Delaware

**Manfred Strecker**, University of Potsdam

# GSA Fellows

Society Fellowship is an honor bestowed on the best of our profession by election at the spring GSA Council meeting. GSA members are nominated by existing GSA Fellows in recognition of their distinguished contributions to the geosciences. Learn more at [www.geosociety.org/fellowship/](http://www.geosociety.org/fellowship/).

GSA's newly elected Fellows (listed below) will be recognized at the 2018 GSA Annual Meeting Presidential Address & Awards Ceremony on Sunday, noon–1:30, Indiana Convention Center, Sagamore Ballroom 5.



Richard C. Aster  
James S. Beard  
L. Sue Beard  
Lori Bettison-Varga  
Janice L. Bishop  
David F. Boutt  
Teresa S. Bowers  
James V. Browning  
Ellen A. Cowan  
Diana Dalbotten  
Cameron Davidson  
Carol M. Dehler  
Hailiang Dong  
Michael J. Dorais  
Peter Doran  
André W. Droxler  
Amy E. East  
Martha Cary Eppes  
Joshua M. Feinberg  
Joan E. Fryxell  
Zvi Garfunkel  
Allen Gellis  
David P. Gillikin

Joe Gillman  
Michelle F. Goman  
John A. Grant III  
Mary Beth Gray  
Sean S. Gulick  
Julia E. Hammer  
Masaki Hayashi  
Sidney R. Hemming  
Charles Murray Henderson  
Gregory D. Hoke  
Steven M. Holland  
Kurt T. Hollocher  
Ganqing Jiang  
Philip L. Johnson  
Thomas M. Johnson  
Anthony Ivan Kemp  
Scott D. King  
John W. Lane Jr.  
Thomas J. Lapen  
Laura K. Lautz  
David S. Leigh  
Adrian Lenardic  
Yu-Feng Forrest Lin

Laura Lukes  
Bruce J. MacFadden  
Mary Ann Madej  
Michael E. Mann  
Ellen E. Martin  
Cecilia M.G. McHugh  
Thomas E. McKenna  
Nadine McQuarrie  
Stephen R. Meyers  
Marti L. Miller  
Francis C. Monastero  
Diane Elaine Moore  
Augusto Neri  
Sterling Nesbitt  
Eric A. Oches  
James B. Paces  
Jonathan L. Payne  
Michael A. Phillips  
Jani Radebaugh  
Mark E. Reid  
Tammy M. Rittenour  
Delores M. Robinson

Yamirka Rojas-Agramonte  
John C. Schumacher  
David Selby  
Kamini Singha  
Michael Elliot Smith  
Robert B. Stewart  
Michael C. Sukop  
Colin D. Sumrall  
Donald S. Sweetkind  
Christopher S. Swezey  
Kenneth B. Taylor  
Jason F. Thomason  
Aradhna Tripathi  
Stephen J. Van der Hoven  
Jorge Antonio Vazquez  
Dorothy J. Vesper  
Josef P. Werne  
Jane K. Willenbring  
Grant C. Willis  
Robert C. Witter  
Yigang Xu  
Yusuke Yokoyama

# Award Lectures

## GSA Presidential Address



**Robbie Rice Gries** will present the 2018 GSA Presidential Address, “Navigating ‘Me too’ in the Geosciences,” at the Indiana Convention Center, Sagamore Ballroom 5, on Sun., 4 Nov., noon–12:30 p.m. See p. 22 for the talk description.

*The following awardees will be recognized at the Presidential Address & Awards ceremony and will lecture on their respective chosen topics on separate dates and times.*

## President’s Medal Lecture



**Iain Stewart**, GSA’s 2018 President’s Medal recipient, will discuss “Selling the Earth: Communicating Contested Geoscience to Public Audiences,” in session no. 211: T78. Barriers, Misconceptions, and Progress in Improving Climate Literacy and Strategies for Communicating about Climate Change,

at the Indiana Convention Center, Room 234, on Tues., 6 Nov., 1:40–2 p.m.

## Gold Medal Lectures

### PENROSE MEDAL



**Kent Condie**, GSA’s 2018 Penrose Medal recipient, will discuss “The Evolution of Plate Tectonics on Planet Earth: Two Lithospheric Transitions in the Last 4 Gyr,” in session no. 146: P3. Plate Tectonics Paradigm 50 Years after the Seminal Work of Morgan, Mckenzie, and Le Pichon, at the Indiana Convention

Center, Sagamore Ballroom 5, on Tues., 6 Nov., 9:05–9:25 a.m.

### ARTHUR L. DAY MEDAL



**Jay Quade**, GSA’s 2018 Arthur L. Day Medal recipient, will discuss the “Geology and Paleoenvironments of the Pliocene–Pleistocene Galili Formation, Ethiopia,” in session no. 223: P4. Human Evolution and Environmental History in Africa: 25 Years of Transformative Research, at the Indiana Convention Center,

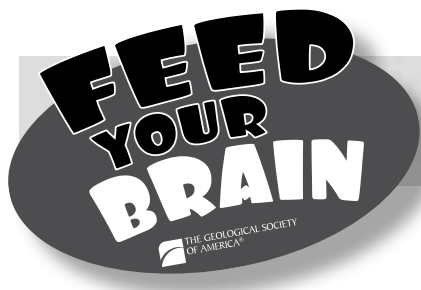
Sagamore Ballroom 5, on Wed., 7 Nov., 11:45–noon.

### YOUNG SCIENTIST AWARD (DONATH MEDAL)



**Laurel G. Larsen**, GSA’s 2018 Young Scientist Award (Donath Medal) recipient, will speak on “Peering through the Web of Complexity Without Getting Caught: How Tools from Complex-Systems Theory Help Identify Dominant Drivers and Feedbacks of Curiously Behaving Aquatic Landscapes,” in session

no. 206: T48. Fluvial Processes from Catchments to Coastlines, at the Indiana Convention Center, Room 135, on Tues., 6 Nov., 1:35–1:55 p.m.



## LUNCHTIME ENLIGHTENMENT

Grab your lunch at a nearby convention center vendor and enjoy a little lunchtime enlightenment. Each presentation will take place in Sagamore Ballroom 5 of the Indiana Convention Center. These events will be live-streamed. Check the website for links.

### SUNDAY, NOON–1:30 P.M.



*In conjunction with the GSA Awards & Medals Ceremony*

**Robbie Rice Gries**, GSA 2018 Presidential Address

**Navigating “Me, too” in the Geosciences**

We have seen the “Me, too!” movement expand across all aspects of humankind. From Hollywood where it grew legs, to Congress, state legislatures, the White House, to huge corporations, small businesses, sports, television personalities, the military, the Olympics, and, yes ... to GSA.

Before Harvey Weinstein, before something hit the proverbial fan—GSA was already receiving and addressing complaints from members who experienced harassment (ranging from bullying to sexual assault) at GSA functions and in their professional lives. We launched a review of our ethics position, our obligations, and our code of conduct to ensure our Society had the ability to effectively deal with unprofessional behavior at GSA meetings, field trips, and other sanctioned events. Recognizing our lack of good definitions and effective procedures, GSA’s initiative was timely, and good strides have been made for our Society to appropriately deal with these types of inappropriate actions. We can take “proactive measures.”

I believe people in the sciences have some excellent skills to address harassment, prejudice, and gender issues. We have the scientific skills and intellect to address many societal problems, and we are good at it. We use data, published studies, field trips, and in-depth conversations with experts in our disciplines to advance our knowledge. We prime the creative pumps of our minds with these actions and techniques to find science-based solutions to nagging problems. This is second nature to the professional geoscientist.

What is not second nature to all of us is how to employ these skills, techniques, use of experts, and data-gathering abilities in our interpersonal relationships, including our interactions with colleagues, staff, students, and families. But we can. And this can make a bigger difference.

Let’s look at historic, sometimes reprehensible behaviors demonstrated by geoscientists, changes that have already been made to counter this behavior, statistics about harassment by scientists today, and possibilities for advancing our science through advances in interpersonal skills and behaviors.

### MONDAY, 12:15–1:15 P.M.

**Ben Bussey for Paul D. Spudis (deceased)**  
**2018 Michel T. Halbouty Distinguished Lecture**  
**The Resources of The Moon**

In the years since Apollo, we have discovered accessible places in near-Earth space that contain valuable material and energy resources. By learning how to access, process, and use these space resources we will advance technology, stimulate wealth, and create a spacefaring infrastructure.

The Moon holds a unique advantage in this endeavor. Areas near the poles receive near-permanent sunlight (up to 95% of the lunar year); this resource enables power generation and near-continuous surface operations in a benign temperature location. In conjunction with accessible solar power, significant quantities of water ice reside in permanently dark craters near the poles. The combined effect of these proximate resources makes permanent human presence on the Moon possible. Through the development and use of the Moon’s resources, the creation of a permanent, extensible space-faring transportation system and infrastructure in space is possible.

Despite this promise, many unknowns remain about the use of extraterrestrial resources. We need a variety of robotic prospecting missions in order to get advanced, high-precision data from targeted deposits. Currently, we do not know the physical and chemical state of lunar polar ice; we need to understand its occurrence and how it varies, as well as its accessibility for mining and what equipment is needed. We must practice and understand both mining and processing, as the polar ice is mixed with a variety of other substances useful for long-term habitation of the Moon.

This view of the Moon and our reasons for returning there is relatively new; it signals a new paradigm of spaceflight. This time humanity goes to the Moon to stay—to use its resources and build a space-based, transportation infrastructure, an endeavor and future that presents major scientific, technological, economic, and national security advances.

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**TUESDAY, 12:15–1:15 P.M.**

**James F. Reilly**, U.S. Geological Survey director  
**U.S. Geological Survey Vision**

As director of the USGS, James (Jim) Reilly is responsible for leading the nation's largest water, Earth, and biological science, and civilian mapping agency.

Prior to joining the USGS, Reilly served U.S. and allied militaries as a subject matter expert on space operations, and as a technical advisor supporting the National Security Space Institute of the U.S. Air Force. He served with the U.S. Navy as a Reserve Engineering Duty Officer.

He's held management positions in academia, as well as at TAEUS Corporation, and PhotoStencil Corporation, in Colorado Springs, Colorado.

As an astronaut at NASA, he had a distinguished 13-year career where he flew three spaceflight missions and conducted five spacewalks totaling more than 856 hours in space.

Prior to NASA, he served as chief geologist at Enserch Exploration, Inc., working on projects around the world. He has been active in geological research in Antarctica and on the continental slope of the Gulf of Mexico.

Reilly received a bachelor's, master's, and doctorate degrees in geosciences from the University of Texas at Dallas.

*Note: As of press time, the Wednesday Feed Your Brain talk has been cancelled due to circumstances outside of the speaker's control.*

## SPECIAL PRESENTATION

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**Making Guided Earth-Science Field Trips Accessible and Affordable Using Virtual Reality: A Virtual Walking Tour of the Indiana University Bloomington Campus Limestone Architecture**

Monday, 4:30–5:30 p.m., Indiana Convention Center, Halls J-K  
**Brian Keith and Chauncey Frend**

The middle Mississippian Salem Limestone, commonly known as “Indiana limestone,” is a popular building stone used in prominent buildings across the United States, including the Empire State Building, the Pentagon, the National Cathedral, and several memorials on the National Mall in Washington, D.C. Quarried exclusively from a 30-mile-long band of Salem Limestone in the south-central Indiana Stone Belt, this small exposure has supplied up to 75% of all limestone used in North American buildings. Its uniform composition, thick bedding, and soft texture has allowed architects and carvers to create intricate ornamental designs and carvings for almost two centuries.

Indiana University Bloomington is in the heart of the Stone Belt and boasts limestone buildings in a variety of architectural styles, garnering a reputation as one of the most beautiful college campuses in the country. See these grand structures for yourself in a new guided tour using virtual reality. This tour showcases both technology and geology and provides a template for generating broad public interest in natural history and geologic processes by using immersive technology to deliver interactive and dynamic content. Brian Keith, Indiana Geological and Water Survey, Indiana University, Bloomington, Indiana, USA, is a carbonate sedimentologist and creator of the campus limestone walking tours. Chauncey Frend, Advanced Visualization Laboratory, Indiana University, Indianapolis, Indiana, USA, specializes in immersive content delivery that appeals to learners of all ages and types.

Learn more about how to use virtual reality to provide an inexpensive overview of far-flung places and concepts in a repeatable workflow designed to promote student engagement and learning. Virtual field trips are, of course, never a replacement for field experiences but are increasingly useful for attracting new generations of students that may not be familiar with the geosciences. Virtual reality can serve as a novel recruitment tool for educators, administrators, parents, and students.

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THE  
GEOLOGICAL  
SOCIETY  
OF AMERICA®

# Awards & Lectures Calendar

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	DAY/TIME/ LOCATION
ICC—Indiana Convention Center		

GEOLOGICAL SOCIETY OF AMERICA		
Arthur L. Day Medal	Jay Quade	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Arthur L. Day Medal Lecture	Jay Quade: Geology and Paleoenvironments of the Pliocene-Pleistocene Galili Formation, Ethiopia	7 Nov., 11:40 a.m.–noon, ICC, Sagamore Ballroom 5
Distinguished Service Award	Nazrul Khandaker	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Distinguished Service Award	Marilyn Suiter	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Distinguished Service Award	Judy T. Parrish	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Geologic Mapping Award in Honor of Florence Bascom	Kristajan Saemundsson	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Honorary Fellow	Eduardo Garzanti	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Honorary Fellow	Bishal Upreti	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
GSA International Lecturers	Holly Michael and Manfred Strecker	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
John C. Frye Memorial Award in Environmental Geology	Tip A. Meckel, Ramon H. Treviño	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Doris M. Curtis Outstanding Woman in Science Award	Andrea Balbas	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Penrose Medal	Kent Condie	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Penrose Medal Lecture	Kent Condie: The Evolution of Plate Tectonics on Planet Earth: Two Lithospheric Transitions in the Last 4 Gyr	6 Nov., 9–9:25 a.m., ICC, Sagamore Ballroom 5
Presidential Address	Robbie Rice Gries: Navigating the “Me too” in the Geosciences	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
President’s Medal	Iain Stewart	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
President’s Medal Lecture	Iain Stewart: Selling the Earth: Communicating Contested Geoscience to Public Audiences	6 Nov., 1:35–2 p.m., ICC, Room 234
Public Service Award	Joaquin Ruiz	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Randolph W. “Bill” and Cecile T. Bromery Award for Minorities	Rufus Catchings	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
Young Scientist Award (Donath Medal)	Laurel G. Larsen	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5



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ICC—Indiana Convention Center		
Young Scientist Award (Donath Medal) Lecture	Laurel G. Larsen: Peering through the Web of Complexity without Getting Caught: How Tools from Complex-Systems Theory Help Identify Dominant Drivers and Feedbacks of Curiously Behaving Aquatic Landscapes	6 Nov., 1:30–1:55 p.m., ICC, Room 135
GSA DIVISIONS AND SECTIONS		
Energy Geology		
Antoinette Lierman Medlin Research Award	Jacob Dyson	6 Nov., 5:30–7:30 p.m., Granite City Food
Antoinette Lierman Medlin Research Award	Libby R.W. Ives	6 Nov., 5:30–7:30 p.m., Granite City Food
Antoinette Lierman Medlin Research Award	Michael D’Antonio	6 Nov., 5:30–7:30 p.m., Granite City Food
Gilbert H. Cady Award	Stephen Greb	6 Nov., 5:30–7:30 p.m., Granite City Food
Environmental and Engineering Geology		
E.B. Burwell, Jr., Award	David S. Parks	6 Nov., 6–9 p.m., The Tap (306 N. Delaware Street)
Meritorious Service Award	Thad Wasklewicz	6 Nov., 6–9 p.m., The Tap (306 N. Delaware Street)
Roy J. Shlemon Scholarship Award	Jon Kenneth Golla	6 Nov., 6–9 p.m., The Tap (306 N. Delaware Street)
Roy J. Shlemon Scholarship Award	Andrew Graber	6 Nov., 6–9 p.m., The Tap (306 N. Delaware Street)
Roy J. Shlemon Scholarship Award	Joe Schilter	6 Nov., 6–9 p.m., The Tap (306 N. Delaware Street)
Geoarchaeology		
Claude C. Albritton, Jr., Scholarship Award	TBD	5 Nov., 5:45–8 p.m., ICC, Room 134
Richard Hay Student Paper/Poster Award	TBD	5 Nov., 5:45–8 p.m., ICC, Room 134
Rip Rapp Archaeological Geology Award	Gary Huckleberry	5 Nov., 5:45–8 p.m., ICC, Room 134
Geobiology & Geomicrobiology		
Outstanding Contributions to Geomicrobiology Award	Paula Welander	5 Nov., noon–1:15 p.m., JW Marriott Indianapolis, White River Ballroom Section D
Outstanding Contributions to Geomicrobiology Award	James Schiffbauer	5 Nov., noon–1:15 p.m., JW Marriott Indianapolis, White River Ballroom Section D
Outstanding Contributions Award—Pre-Tenure	Beth Orcutt	5 Nov., noon–1:15 p.m., JW Marriott Indianapolis, White River Ballroom Section D
Outstanding Contributions Award—Post-Tenure	Andrew Knoll	5 Nov., noon–1:15 p.m., JW Marriott Indianapolis, White River Ballroom Section D

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	LDAY/TIME/ LOCATION
ICC—Indiana Convention Center		
Geoinformatics		
Outstanding Contributions in Geoinformatics Award	Stephen M. Richard	6 Nov., 7–9 p.m., JW Marriott Indianapolis, Room 104
Geology and Society		
E-an Zen Fund for Geoscience Outreach Grant	Nigel Hughes	4 Nov., 7–9 p.m., Granite City Food
E-an Zen Fund for Geoscience Outreach Grant	Behnaz Hosseini	4 Nov., 7–9 p.m., Granite City Food
Geophysics & Geodynamics		
Allan V. Cox Student Research Award	Amanda Ketting-Olivier	TBD
George P. Woollard Award and Technical Lecture	Greg Hirth	6 Nov., 12:15–1:15 p.m., ICC, Tech Session TBD
Student Research Award	Audrey Dunham	TBD
Geoscience Education		
Iris Moreno Totten Geoscience Education Research award	Caitlin K. Kirby	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
Biggs Award for Excellence in Earth Science Teaching	Nicole LaDue	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
GSA International		
Distinguished Career Award	Peter Molnar	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
History and Philosophy of Geology		
Gerald M. and Sue T. Friedman History of Geology Distinguished Service Award		6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
Mary C. Rabbitt History of Geology Award	William Brice	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
Michele Aldrich History and Philosophy of Geology Student Research Award	Gustave Lester	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
Hydrogeology		
Birdsall-Dreiss Distinguished Lecture	Laura Crossey	6 Nov., 4:30–5:30 p.m., ICC, Sagamore Ballroom 6
George Burke Maxey Distinguished Service Award	Todd Halihan	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
Henry Darcy Distinguished Lecture		5 Nov., 4–5 p.m., ICC, Sagamore Ballroom 6
Kohout Early Career Award	Scott Jasechko	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
O.E. Meinzer Award	Shemin Ge	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104
Student Research Awards	Mark Higgins, Deon Knights, Amelia Nelson, Mary Plache, Devin Smith	6 Nov., noon–2 p.m., JW Marriott Indianapolis, Room 104

# Awards & Lectures Calendar

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	DAY/TIME/ LOCATION
ICC—Indiana Convention Center		

<b>Karst</b>		
John W. Hess Research Grant	Jenny Ni	5 Nov., 5:30–7:30 p.m., ICC, Room 132
<b>Limnogeology</b>		
Israel C. Russell Award	Sherilyn C. Fritz	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
Kerry Kelts Research Award	Ellie Broadman	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
<b>Mineralogy, Geochemistry, Petrology, and Volcanology</b>		
Distinguished Geologic Career Award	Calvin Miller	6 Nov., 5:45–7:30 p.m., ICC, Room 204
Distinguished Geologic Career Award Lecture	Calvin Miller	5 Nov., ICC, Halls J-K
Early Career Award	Christopher W. Hamilton	6 Nov., 5:45–7:30 p.m., ICC, Room 204
Early Career Award Lecture		4 Nov., 8 a.m.–noon, ICC, Room 243
Student Research Awards	Ezequiel A Moreno Flores, Fotios Fouskas, Jacob Klug, Bryan Maciag, Donald Maute, Hannah Shamloo	6 Nov., 5:45–7:30 p.m., ICC, Room 204
<b>Planetary Geology</b>		
Eugene M. Shoemaker Impact Crater Award		6 Nov., 7–10 p.m., Rock Bottom Restaurant
G.K. Gilbert Award	Jeffrey M. Moore	6 Nov., 7–10 p.m., Rock Bottom Restaurant
G.K. Gilbert Award Lecture	Jeffrey M. Moore	6 Nov., 1:35–1:55 p.m., ICC, Room 236-237
Ronald Greeley Award for Distinguished Service	Kelsi N. Singer	6 Nov., 7–10 p.m., Rock Bottom Restaurant
<b>Quaternary Geology and Geomorphology</b>		
Arthur D. Howard Student Research Grant	Nathaniel Norris	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Distinguished Career Award	Ellen Wohl	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Distinguished Career Award Lecture	Ellen Wohl	
Farouk El-Baz Award for Desert Research	Paul Hesse	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Farouk El-Baz Award for Desert Research Technical Lecture	Paul Hesse	
Gladys W. Cole Award	Joan Florsheim	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
J. Hoover Mackin Student Research Grant	Ian Reeves	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
John A. Black Research Award	Danielle Molisee	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Kirk Bryan Award	Karen B. Gran, Noah Finnegan, Andrea L. Johnson, Patrick Belmont, Chad Wittkop, and Tammy Rittenour	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	DAY/TIME/ LOCATION
ICC—Indiana Convention Center		
Kirk Bryan Award Lecture		
Marie Morisawa Research Award	Annette Patton	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Peter Birkeland Research Award	Charles Abolt	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Robert K. Fahnestock Memorial Award	Megan Doughty	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
Stanley A. Schumm Research Grant Award	Rebecca Beers	6 Nov., 7–11 p.m., ICC, Sagamore Ballroom 5
<b>Sedimentary Geology</b>		
Laurence L. Sloss Award	Ken Miller	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
Stephen E. Laubach Research in Structural Diagenesis Award	William Jackson	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
Student Research Award	Agustin Kriscautzky	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
<b>Structural Geology and Tectonics</b>		
Career Contribution Award	Elizabeth Miller	6 Nov., 5:30–9 p.m., ICC, Room 240-241
Outstanding Publication Award	C.H. Jones, H. Reeg, G. Zandt, H. Gilbert, T. J. Owens, and J. Stachnik	6 Nov., 5:30–9 p.m., ICC, Room 240-241
Stephen E. Laubach Research in Structural Diagenesis Award	William Jackson	6 Nov., 6–8 p.m., ICC, Sagamore Ballroom 3
Student Research Travel Grant Awards	William Duckworth, Karol Faehnrich, Bari Hanafi, MacKenzie Mark-Moser, Meredith Swallow	6 Nov., 5:30–9 p.m., ICC, Room 240-241
<b>OTHER GROUPS</b>		
<b>American Geosciences Institute (AGI)</b>		
AGI Medal in Memory of Ian Campbell Award for Superlative Service to the Geosciences	Scott Tinker	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
<b>Association of American State Geologists</b>		
John C. Frye Memorial Award in Environmental Geology	Tip A. Meckel, Ramon H. Treviño	4 Nov., noon–1:30 p.m., ICC, Sagamore Ballroom 5
<b>Association for Women Geologists (AWG)</b>		
Brunton Award	TBD	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Chrysalis Scholarship	Maggie Graham	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Chrysalis Scholarship	Stacy Hendricks	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Chrysalis Scholarship	Alicia Tyson	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4

# Awards & Lectures Calendar

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	DAY/TIME/ LOCATION
ICC—Indiana Convention Center		
Outstanding Educator Award	M. Gabriela Mángano	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Professional Excellence Award (in Academia)	Lesley-Ann Dupigny-Giroux	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Professional Excellence Award (in Government)	Patricia McCrory	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Professional Excellence Award (in Industry)	Esther Babcock	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Winifred Goldring Award	Jin-Si Over	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Undergraduate Excellence in Paleontology	Stephanie Plaza-Torres	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
Undergraduate Excellence in Paleontology	Amanda “Billie” Guerrero	5 Nov., 6:30–8:30 a.m., ICC, Sagamore Ballroom 4
<b>Council on Undergraduate Research (CUR) GeoCUR (Geosciences Division)</b>		
GeoCUR Undergraduate Research Mentor Award	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
<b>Geoscience Information Society (GSIS)</b>		
Best Guidebook Award	TBD	5 Nov., noon–1:30 p.m., JW Marriott Indianapolis, Room 102
Best Paper Award	TBD	5 Nov., noon–1:30 p.m., JW Marriott Indianapolis, Room 102
Mary B. Ansari Best Research Resource Award	Martin P.A. Jackson, Michael R. Hudec	5 Nov., noon–1:30 p.m., JW Marriott Indianapolis, Room 102
Mary B. Ansari Distinguished Service Award	TBD	5 Nov., noon–1:30 p.m., JW Marriott Indianapolis, Room 102
Outstanding Geologic Field Trip Guidebook Series	TBD	5 Nov., noon–1:30 p.m., JW Marriott Indianapolis, Room 102
<b>Mineralogical Society of America (MSA)</b>		
Mineralogical Society of America Award	Laura Nielsen Lammers	6 Nov., 3–5:30 p.m., ICC, Sagamore Ballroom 5
Presidential Address	Michael Brown	6 Nov., 3–5:30 p.m., ICC, Sagamore Ballroom 5
Roebbling Medal	E. Bruce Watson	6 Nov., 3–5:30 p.m., ICC, Sagamore Ballroom 5
Roebbling Medal Lecture	E. Bruce Watson	6 Nov., 3:40–4 p.m., ICC, Sagamore Ballroom 5
Dana Medal	Jörg Hermann	6 Nov., 3–5:30 p.m., ICC, Sagamore Ballroom 5
Distinguished Public Service Medal	TBD	6 Nov., 3–5:30 p.m., ICC, Sagamore Ballroom 5

AWARD/LECTURE NAME	AWARDEE/ SPEAKER/TALK	DAY/TIME/ LOCATION
ICC—Indiana Convention Center		
<b>National Association of Geoscience Teachers (NAGT)</b>		
Dorothy LaLonde Stout Award	Russel Kohrs	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
Dorothy LaLonde Stout Award	Jill Weaver	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
Dorothy LaLonde Stout Award	Sara Young	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
James H. Shea Award	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
JGE Outstanding Reviewers	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
JGE Outstanding Paper	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
Neil Miner Award	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
Robert Christman Distinguished Service Award	TBD	6 Nov., 11:30 a.m.–1 p.m., JW Marriott Indianapolis, White River Ballroom Sections GH
<b>National Ground Water Association (NGWA)</b>		
Henry Darcy Distinguished Lecture	TBD	5 Nov., 4–5 p.m., ICC, Sagamore Ballroom 6
<b>Paleontological Research Institute (PRI)</b>		
The Gilbert Harris Award	TBD	
<b>Paleontological Society</b>		
Charles Schuchert Award	Seth Finnegan	4 Nov., 6:30–10:30 p.m., ICC, Ballroom 500
Harrell L. Strimple Award	Jack Kallmeyer	4 Nov., 6:30–10:30 p.m., ICC, Ballroom 500
Paleontological Society Medal	Anna K. Behrensmeier	4 Nov., 6:30–10:30 p.m., ICC, Ballroom 500
Pojeta Award	Eugenie Scott	4 Nov., 6:30–10:30 p.m., ICC, Ballroom 500



# Pardee Keynote Symposia

All Pardee Keynote Sessions, listed here in chronological order, take place at the **Indiana Convention Center**. These symposia are named after Joseph T. Pardee, an esteemed geoscience and GSA benefactor. Pardee sessions being held in Sagamore Ballroom 5 will be transcribed on screen in real time.

## SUNDAY

1:30–5:30 p.m., Hall J-K

### P1. **Earth As a Big Data Puzzle: Advancing Information Frontiers in Geoscience**

*Cosponsor: GSA Geoinformatics Division*

## MONDAY

1:30–5:30 p.m., Sagamore Ballroom 5

### P2. **Women Rising: Removing Barriers and Achieving Parity in the Geosciences**

*Cosponsors: GSA Geology and Society Division; GSA Geology and Public Policy Committee; Association for Women Geoscientists; Earth Science Women's Network*

Live-streamed

## TUESDAY

8 a.m.–noon, Sagamore Ballroom 5

### P3. **Plate Tectonics Paradigm 50 Years after the Seminal Work of Morgan, McKenzie, and Le Pichon**

*Cosponsors: GSA Structural Geology and Tectonics Division; GSA History and Philosophy of Geology Division; GSA Geophysics and Geodynamics Division; American Geophysical Union*

Live-streamed

## WEDNESDAY

8 a.m.–noon, Sagamore Ballroom 5

### P4. **Human Evolution and Environmental History in Africa: 25 Years of Transformative Research**

*Cosponsors: GSA Limnogeology Division; GSA Geoarchaeology Division; GSA Quaternary Geology and Geomorphology Division; GSA Sedimentary Geology Division; GSA Continental Scientific Drilling Division; EarthRates*

Live-streamed

## The Best of AAPG at GSA 2018

Oil- and gas-related presentations by the following authors are happening during GSA's Annual Meeting. Come to session T33: Geologic Energy Research II, with the best of AAPG on Mon., 5 Nov., to hear these peer-judged talks selected as the best from the American Association of Petroleum Geologists (AAPG):

*Geologic Energy Research (T33)*

**David Anastasio**, Lehigh University

**Michael A. Durcanin**, Sierra Oil and Gas

**Antara Goswami**, ION Geoventures

**Gopal Mohapatra**, Hess Corporation

**Niven Shumaker**, Noble Energy



# LATE-BREAKING SESSION

## Kīlauea 2018: Geoscience and Communication During a High-Profile Natural Event

Mon., 5 Nov., Indiana Convention Center, Sagamore Ballroom 5, 8:45 a.m.–noon

**Conveners:** Ken H. Rubin, [krubin@hawaii.edu](mailto:krubin@hawaii.edu),  
University of Hawai'i at Mānoa; Aaron J. Pietruszka,  
[apietruszk@usgs.gov](mailto:apietruszk@usgs.gov), U.S. Geological Survey,  
Geology, Geophysics, and Geochemistry Science Center.

**Cosponsors:** *GSA Geophysics and Geodynamics  
Division; GSA Mineralogy, Geochemistry, Petrology,  
and Volcanology Division; GSA Structural Geology and  
Tectonics Division; Mineralogical Society of America;  
GSA Geology and Society Division.*

This event will be streamed live at <https://zoom.us/j/603884786>.



Fissure 8 and the resulting flow from the East Rift Zone eruption taken on 25 June by Ben Gaddis, USGS.



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Learn more at [www.geosociety.org/gsa/pubs/geofacets.aspx](http://www.geosociety.org/gsa/pubs/geofacets.aspx).



## GSA Membership 2019

Renew or Join [www.geosociety.org/members](http://www.geosociety.org/members)

# Career Events

## SUNDAY

### GeoCareers Day

**8 a.m.–1 p.m., ICC, Sagamore Ballroom 4**

All GeoCareers Day events are held in Indiana Convention Center (ICC) Sagamore Ballroom 4. All-inclusive fee: US\$25. This event will provide a well-rounded introduction to industry and government careers, especially for students in their undergraduate studies.

**Geoscience Career Workshop:** 8–9 a.m.: Before you jump into the job search process, gain an understanding of the current geoscience workforce data, including salary, employment trends, and projections. Presenters will also review the fundamentals of crafting a winning résumé and how to best utilize the USAJOBS database for applications for federal employment.

**Company and Agency Information Booths:** 9–11 a.m.: Agency and company booths will be set up to answer your career questions. Learn about each unique work culture and types of internships and careers available.

**Career Mentor Roundtables:** 10–11:30 a.m.: Mentors from non-profits, industry, government, and academia will answer your career questions at table stations around the room.

**Career Pathways Panel** (includes lunch): noon–1 p.m.: Representatives from government and industry sectors will answer questions and offer advice in preparation for a career in these fields. Lunch ticket provided, but lunch is limited to first-come, first-served. All-day participants receive priority.

The following GeoCareers Day events may be attended separately:

**Career Workshop:** US\$10 fee if attending separately.

**Career Pathways Panel:** Free. Lunch is included but limited to first-come, first-served. All-day participants receive priority.

## MORE CAREER EVENTS ON SUNDAY

**Social Media for Scientists Workshop—Lecture:** 2–3 p.m., ICC, Mentoring Center, Room 206-207. *This workshop is open to all and free of charge.*

Want to learn more about using social media to communicate your science? We will discuss the current social media landscape as well as best practices, tips, guidelines, and inspirations for multiple social media platforms. We'll also talk about how you can utilize social media to build public trust in science and scientists. Designed for scientists, ideal for beginners, but helpful for everyone!

**Social Media for Scientists Workshop—Lab:** 3–4 p.m., ICC, Mentoring Center, Room 206-207.

*This workshop is open to all and free of charge.*

Participate in breakout sessions with experts on specific social media platforms, including Reddit, LinkedIn, Twitter, Facebook, and Instagram. Learn how to use or improve your game on these

different platforms to communicate science with different demographics using different types of media. All levels welcome; attendance at the lecture is not required.

**Women in Geology Career Pathways Reception:** 5:30–7 p.m., ICC, Mentoring Center, Room 206-207.

This informal gathering begins with remarks from a few key women speakers who will address issues faced by women in geology. A networking session follows, providing time for sharing ideas and getting to know other women geoscientists. Registration is not required.

## MONDAY

**Early Career Professionals Coffee:** 9–10 a.m., ICC, Mentoring Center, Room 206-207.

This informal gathering will include remarks from representatives of several non-profits who have activities of interest to early career professionals. There will be time for networking and sharing ideas on how these organizations can best serve you. Registration is not required.

**Networking Reception:** 11:30 a.m.–1 p.m., ICC, Mentoring Center, Room 206-207.

This reception provides students and early career professionals with an exciting opportunity to network with more than 40 geoscience professionals. The mentors will answer questions, offer advice about career plans, and comment on job opportunities within their fields.

**The Paleontological Society Mentors in Paleontology Careers Luncheon,** noon–1:30 p.m., Weber Grill Restaurant.

This student luncheon features a panel of mentors representing a variety of colleges, universities, museums, and government agencies.

**Women Rising Networking Social:** 5:30–7 p.m., ICC, Room 204.

An informal social to extend the discussions and connections from the Pardee Session *Women Rising: Removing Barriers and Achieving Parity in the Geosciences*. Professionals, students, department chairs, and program managers working to be inclusive of all talent are encouraged to attend.

## TUESDAY

**GSA Hydrogeology Division Student Mentoring:** 2:30–4:30 p.m., ICC, Sagamore Ballroom 4.

In a relaxed and welcoming atmosphere, this gathering will begin with remarks from hydrogeologists in a variety of career fields, including government, industry, and academia. A roundtable mentoring session follows, providing time for individuals to network, share ideas, ask questions, and discuss careers in hydrogeology.





### GSA MENTORING CENTER

Indiana Convention Center (ICC), Room 206-207

Mon.–Tues., 9 a.m.–5 p.m., and Wed., 9 a.m.–3 p.m.

Stop by the center to see an updated schedule of presentations.

- **Post or view jobs**—Bulletin boards will be available to post jobs, internships, and opportunities for students and early career professionals.
- **Presentations**—A variety of topics including successfully applying to GSA student opportunities, applying to graduate school, and learning opportunities will be just some of the presentations offered.
- **Drop-in mentoring**—If you have questions that you would like answered one-on-one, stop by and receive mentoring advice from a variety of geology professionals. Mon.–Tues., noon–4 p.m.
- **Network with exhibitors**—Join exhibitors and other meeting attendees in a casual environment to discuss careers and geoscience interests.

### RÉSUMÉ CLINIC IN THE MENTORING CENTER

ICC, Room 206-207

Mon.–Tues., 9 a.m.–5 p.m.

Stop by for a private consultation with a geoscience professional to review your résumé and discuss strategies to better market yourself to potential employers. Please bring a copy of your current résumé. First-come, first-served; space is limited.

### ANNUAL MEETING MENTORING KICK-OFF

If you were paired with a meeting mentor using the new GSA Mentor Platform, join us for a kick-off in ICC, Mentoring Center, Room 206-207 on Sunday at 4:30 p.m.



THE GEOLOGICAL SOCIETY  
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## Notice of GSA Council Meetings

**GSA Headquarters Hotel: JW Marriott,  
10 S. West Street, Indianapolis, Indiana 46204, USA**

- ▶ **Day 1:** Saturday, 3 Nov., 8 a.m.–noon, White River Ballroom, Section G
- ▶ **Day 2:** Wednesday, 7 Nov., 8 a.m.–noon, Room 101-102

All GSA members are invited to attend the open portions of these meetings.

*\*Meeting room is subject to change. Updates will be posted.*

# Student Information & Activities

Please be sure to check out the students page at [community.geosociety.org/gsa2018/students](http://community.geosociety.org/gsa2018/students) for the most up-to-date information.



## Best Student Geologic Map Competition

Please join us for poster session T179, the Best Student Geologic Mapping Competition. This session provides a venue for students to present their geologic maps that have a significant field component, with awards for the top three maps.



## GSA Night at the Indiana State Museum

Students (graduate and undergraduate) and Early Career Professionals Networking Event. Sunday, 4 Nov., 7–9:30 p.m., US\$20. Meet and network with other young professionals while enjoying food and drinks. Tickets will be taken at the door.

## 2018 Section Meeting Student Poster Winners

### South-Central Section

**Graduate Winner:** Kristina Wolfe: “Sensitivity of Oxygen Minimum Zones Due to Carbon Dioxide Radiative Forcings.”

**Undergraduate Winner:** Russell Krug: “Petrophysical and Sedimentological Analysis of Reservoir Units in Ellis Central Kansas Uplift.”

### North-Central Section

**Graduate Winner:** Anna C. Thompson: “A Relationship between Sliding Speed and Effective Pressure Based on Observations of Deglaciated Bedrock.”

**Undergraduate Winner:** Jory Van Ess: “Exploring Methods to Determine the Strain Ellipsoid in Dunites to Provide Context for EBSD CPO Patterns.”

## 2019 Graduate Student Research Grants

Starting on 1 Dec. 2018, GSA will begin accepting applications for its Graduate Student Research Grant program. Apply by 5 p.m. MST on 1 Feb. 2019.

*In 2018:*

- 730 students submitted proposals
- 381 (~52%) students received funding
- US\$778,594 was awarded overall
- The average grant amount was US\$2,044
- The maximum grant amount was US\$2,500 (except for a few specialized awards, which sometimes exceeded US\$2,500)

The GSA Graduate Student Research Grant Program is supported by the National Science Foundation under Grant No. 1712071.

For more information:  
[researchgrants@geosociety.org](mailto:researchgrants@geosociety.org)  
+1-303-357-1025  
[www.geosociety.org/grants](http://www.geosociety.org/grants)





# On To the Future Events



GSA welcomes the new cohort of 70 On To the Future (OTF) award recipients. OTF supports students from underrepresented groups to attend their first GSA Annual Meeting. ICC—Indiana Convention Center.

## **Showcasing the Best You: A Writing Workshop to Help You Gain Internships, Fellowships, and Jobs—Invite Only**

Sat., 8:30 a.m.–5:30 p.m., ICC, Rooms 206-207.

## **On To the Future Photo Mob—Invite Only**

Sun., 6:15 p.m., ICC, Exhibit Hall, GSA Foundation Booth

## **On To the Future Gatherings—Invite Only**

Mon.–Wed., 7:30–8 a.m., ICC, Room 206-207

Presented by GSA's Officers and Councilors, these early morning sessions will introduce OTF awardees to the organization's leadership and governance structure. Presenters will discuss paid geoscience opportunities, research grants, field camps, and other opportunities. Coffee and a continental breakfast will be provided.

# Diversity & Inclusion Events

*All Are Welcome*

## **Short Course 521. Unconscious Bias and Active Bystander Intervention Training to Promote Positive Work Climates**

Sat., 8 a.m.–noon, JW Marriott, US\$10.

## **Pardee Keynote Symposium: Women Rising: Removing Barriers and Achieving Parity in the Geosciences**

Sun., 1:30–5:30 p.m., Indiana Convention Center (ICC), Sagamore Ballroom 5

## **Women in Geology Career Pathways Reception**

Sun., 5:30–7 p.m., ICC, Mentoring Center, Room 206-207

## **GSA RISE: Harassment Resistance and Active Bystander Intervention**

Tues., 9–11 a.m., ICC, Mentoring Center, Room 206-207

## **Diversity in the Geosciences and On To the Future Alumni Reception**

Tues., 5:30–7 p.m., ICC, Room 211

All are welcome to this reception to share ideas and celebrate diversity with the geoscience community. The 2018 On To the Future awardees and Minority Scholarship recipients will be recognized with a special keynote from the 2018 Bromery Awardee. Appetizers and a cash bar provided.

## **LBGTQ Social**

Tues., 7:30–11 p.m., Yard House





## Social Media



Annual Meeting attendees are listed in the Annual Meeting Community Directory, which is accessible only to other meeting participants at **community.geosociety.org/gsa2018/directory**. Use this networking tool to search for and connect with colleagues. Keep the connections alive after the meeting through GSA Member Community discussion forums. New to the Member Community? If you are logging in for the first time, please navigate to community.geosociety.org, select “Log In” in the upper right-hand corner of the page, and follow the prompts to get started. We encourage you to activate your profile and upload a photo now so that others can connect with you!



Follow GSA @geosociety on **Twitter** and **Instagram** and use Annual Meeting hashtag #GSA2018.



**Facebook**—Join more than 280,000 GSA fans worldwide at [www.facebook.com/GSA.1888](http://www.facebook.com/GSA.1888).



**YouTube**—Learn more about GSA and careers in the geosciences at [www.youtube.com/user/geosociety](http://www.youtube.com/user/geosociety).



**LinkedIn**—Network and stay connected to your professional peers at <http://linkd.in/1HsYwni>.

**Note:** *GSA meeting policy prohibits the use of cameras or sound-recording equipment in technical sessions.*

## Educator Opportunities

### Geoscience Educators Reception

Sun., 7–8:30 p.m. Rock Bottom Restaurant,  
10 West Washington St.

Are you a teacher of geoscience? Do you enjoy sharing effective pedagogical techniques for the classroom and field with your colleagues? Are you still thirsty after the opening of the Exhibit Hall? Come join your colleagues at the Geoscience Educators Reception for light fare, good drinks, and better conversation.

### GeoTeachers 2018

Fri.–Sun., various locations

With this annual meeting, GSA celebrates completion of the first year of GeoTeachers, GSA’s professional development program for K–12 teachers and related educators. Come learn about our experiences on the Colorado Plateau, in the Central Front Range, and here in the crossroads of America at a presentation in session T87: Collaborative Partnerships between K–12 Teachers/Informal Educators and Scientists. Clues about the location of our 2019 workshops will also be revealed during this session! For those who cannot attend, see Dean Moosavi at the GSA Headquarters Booth for more information.

## Rocks and Hops Soiree

Sunday, 7–9 p.m.  
Granite City Brewery,  
49 West Maryland Street, Indianapolis

### Cosponsors:

GSA Geology and Society Division

GSA Geology and Public Policy Committee

GSA-USGS Congressional Science Fellowship

GSA GeoCorps™ America

NPS Geoscientists-in-the-Parks (GIP)

The soiree cosponsors encourage you to drop by, have some food and drink at this hosted event, engage in discussions of geology, policy, and ways to apply geology in society through the cosponsors’ programs. Refreshments provided. Beer/wine tickets available from hosting organization board members. This event also serves as the GeoCorps and GIP reception for alumni and friends.



### Indiana Geology Presentations for the Public and the Geocaching Community

Sunday, 1–4 p.m.

GSA and its EarthCache program are hosting a series of presentations about the geology of Indiana and surrounding areas. These presentations are designed for the Geocaching and EarthCaching communities, as well as other members of the public, particularly local teachers.

You'll find a list of presentations, their locations, and their times on the web at [community.geosociety.org/gsa2018](http://community.geosociety.org/gsa2018) and on the EarthCache homepage: [www.geosociety.org/earthcache](http://www.geosociety.org/earthcache).

For more information, contact Matt Dawson at [mdawson@geosociety.org](mailto:mdawson@geosociety.org).

### Indiana EarthCache Sites

While you're here, take advantage of the chance to visit EarthCache sites in the Indianapolis area.

EarthCaching is a GPS-based outdoor activity that brings people to sites of geological interest.

To find EarthCache sites in Indianapolis, go to [www.geocaching.com](http://www.geocaching.com) and enter zip code 46225 or any of the following GC-codes:

- GC2JAKQ ("White River Confluence")
- GC1E1XP ("Limestone Lore")
- GC70MGJ ("Christ Church Cathedral Cephalopod")
- GC7D4CH ("Gneiss Flow Banding and Segregation Zones")
- GC7DCC2 ("What's Running through Those Veins?")

For EarthCache sites along the primary routes into and out of Indianapolis, go to [community.geosociety.org/gsa2018/earthcache](http://community.geosociety.org/gsa2018/earthcache).

[www.geosociety.org/earthcache](http://www.geosociety.org/earthcache)

## GSA GEOCORPS™ AMERICA PROGRAM



*Temporary, short-term geoscience opportunities in America's amazing public lands.*

### SUMMER 2019 GEOCORPS POSITIONS

► Will be posted online 1 Dec. 2018

GeoCorps provides geoscience opportunities on federal public lands. Project areas include a wide variety of topics, such as paleontology, hydrology, geohazards, caves/karst, GIS/mapping, and more.

[www.geosociety.org/geocorps](http://www.geosociety.org/geocorps)

[www.facebook.com/GeoCorps](http://www.facebook.com/GeoCorps)



# National Park Service Geoscientists-in-the-Parks (GIP) Opportunities

*Spend next summer serving in a National Park!*

## SUMMER 2019 GIP POSITIONS

► Will be posted online 1 Dec. 2018

The NPS GIP program places college students and early career professionals (18–35 years old) in National Park Service units for three months to one year to assist with geology and integrated science projects. This program is a partnership between the National Park Service, the Geological Society of America, and the Stewards Individual Placement Program.

[www.geosociety.org/gip](http://www.geosociety.org/gip)



## GeoCorps™ Enterprise

GeoCorps™ America is now accepting industry partners!

Use GSA to find the best students and recent graduates for your short-term projects during the summer and other times of the year.

*You focus on the geoscience, and we'll take care of the administration.*

Contact Matt Dawson for more information, +1-303-357-1025, [geocorps@geosociety.org](mailto:geocorps@geosociety.org)

[www.geosociety.org/GeoCorpsEnterprise](http://www.geosociety.org/GeoCorpsEnterprise)

## Future GSA Annual Meetings

### 2019

Phoenix, Arizona, USA  
(22–25 September)

### 2020

Montréal, Québec, Canada  
(25–28 October)

### 2021

Portland, Oregon, USA  
(10–13 October)

### 2022

Denver, Colorado, USA  
(9–12 October)

### 2023

Pittsburgh, Pennsylvania, USA  
(15–18 October)

### 2024

Anaheim, California, USA  
(22–25 September)

# 2019 GSA Section Meetings



## Northeastern

17–19 March

Portland, Maine, USA

Meeting Chair: Steve Pollock, [spollock@maine.rr.com](mailto:spollock@maine.rr.com)

[www.geosociety.org/ne-mtg](http://www.geosociety.org/ne-mtg)



## Joint South-Central/North-Central/ Rocky Mountain

25–27 March

Manhattan, Kansas, USA

Meeting Chairs: Matthew Kirk, [matthew.f.kirk@gmail.com](mailto:matthew.f.kirk@gmail.com);

Tina Niemi, [niemit@umkc.edu](mailto:niemit@umkc.edu); Shannon Mahan,

[smahan@usgs.gov](mailto:smahan@usgs.gov)

[www.geosociety.org/sc-mtg](http://www.geosociety.org/sc-mtg)



## Southeastern

28–29 March

Charleston, South Carolina, USA

Meeting Chairs: Scott Harris, [HarrisS@cofc.edu](mailto:HarrisS@cofc.edu);

Katie Luciano, [LucianoK@dnr.sc.gov](mailto:LucianoK@dnr.sc.gov)

[www.geosociety.org/se-mtg](http://www.geosociety.org/se-mtg)



## Cordilleran

15–17 May

Portland, Oregon, USA

Meeting Chairs: Martin Streck, [streckm@pdx.edu](mailto:streckm@pdx.edu);

Jim O'Connor, [oconnor@usgs.gov](mailto:oconnor@usgs.gov)

[www.geosociety.org/cd-mtg](http://www.geosociety.org/cd-mtg)

Northeastern image: Portland waterfront, Portland, Maine, USA. Photo courtesy Maine Office of Tourism. Joint Meeting image: Manhattan, Kansas, USA. Photo courtesy K-State Photo Services. Southeastern image: Beach boardwalk, Charleston, South Carolina, USA. Photo courtesy Meetcharleston.com. Cordilleran image: Chanticleer Point, Portland, Oregon, USA. Photo by Martin Streck.



# Local Tours

The following local tours are open to all registered GSA Annual Meeting attendees and guests. For short visits and historical tours, it is valuable to have an experienced and knowledgeable guide to assist you as you tour the city. Our tour groups are small and provide guests with an opportunity to ask questions and get off the beaten path!

## SUNDAY

### 101. Mimosas & Masterpiece

► 4 Nov., 9 a.m.–1 p.m. US\$89; min 20 participants.

Mimosa and a Masterpiece is an innovative and inspiring art class that allows you to paint while sipping on a cocktail. The local artist will guide you stroke-by-stroke through the process to complete the featured painting. The class is fun and energetic with frequent breaks, lots of laughs, and no experience needed. Afterward, attendees will enjoy retail therapy or dining options on Mass Ave with unique and historic shops such as Silver in the City, Sage Clothing Boutique, Arts A Poppin, and much more!

## MONDAY

### 102. Indy Sampler

► 5 Nov., 9 a.m.–noon. US\$68; min 20 participants.

Guests will enjoy an in-depth sightseeing tour of Indianapolis, including a bit of history, information on the city's main attractions, restaurants, and its citizens. Throughout the tour, guests will be given an opportunity to ask questions. Our well-trained guides love interacting with the attendees as they show off our great city!

The Indy Sampler Tour includes one stop allowing guests a stretch break and to experience one of Indy's unique attractions. The planned stop for GSA is the Indianapolis Motor Speedway, where guests will get a glimpse into the rich racing history at this famed venue—home of the annual Indy 500, the largest one-day sporting event in the world.

## TUESDAY

### 103. Wine and All That Jazz

► 6 Nov., 1–3:30 p.m. US\$59; min 20 participants.

Surprising to many, Indianapolis has a deep **Jazz heritage**, along with roots and history of the **Underground Railroad** that went right through the heart of the city. Guests will learn more about this heritage along Indiana Avenue in the near downtown area en route to the winery.

**WINE**—Nothing is so simply satisfying, yet so deliciously complex. For more than 25 years, the **Chateau Thomas Winery** has been celebrating this duality by crafting some of the most delightful wines in the country. Guests will take a cellar tour and participate in a **wine tasting** where they will experience the wines of Indiana's own Chateau Thomas Winery while nibbling on fruit and cheese.

## WEDNESDAY

### 104. A True Tea Experience

► 7 Nov., 12:30–4:30 p.m. US\$85; min 20 participants.

With a thirst for more customized experiences and a drive to share the love of blending tea, HoiTEA ToiTEA has created an opportunity for you to create and take home your very own blend! Get educated and be entertained. You could make multiple visits and leave with a different brew each time. Never pretentious but always the proper amount of fun and blending guidance to create a tea that steeps to you. Smell the aromas, taste the flavors, feel the warmth of your cup, and chat with other tea lovers! Afterward, guests will enjoy the trendy, eclectic shops and eateries in Broad Ripple Village, just steps away.



# Guest Program

## Penrose Guest Hospitality Suite

► Sun.–Wed., 4–7 Nov., 8 a.m.–5:30 p.m., Indiana Convention Center, Room 210

We warmly welcome all members of the GSA community to Indianapolis! As part of that welcome, we offer registered guests and Penrose Circle Invitees a comfortable hospitality suite for rest and relaxation while technical sessions are happening. As a registered guest, you are welcome to attend your companion's technical session(s), and you will also have admittance to the Exhibit Hall. Activities in the suite include complimentary refreshments, entertaining and complimentary educational seminars, and local experts ready to answer your questions about Indianapolis. Local tours and activities are also offered for an additional fee. We hope that you take advantage of the tours to learn about the area from one of the knowledgeable tour guides.

## SEMINARS

### SUNDAY

#### Fiber Art

► 4 Nov., 10 a.m., Penrose Guest Hospitality Suite

Each guest will select a variety of colors from a huge assortment of wool fibers. These colorful wool fibers are pulled, by the attendee, into various shapes and dimensions, positioned on a backing and ironed to fuse them into place. Create a one of a kind piece of art that can be inserted into a cardboard frame to for a card to send to a loved one/friend or taken home and placed into an actual frame.



### MONDAY

#### Eiteljorg Museum of American Indians and Western Art

► 5 Nov., 10 a.m., Penrose Guest Hospitality Suite

Guests will hear the history of how and why this fantastic museum is located in Indy as well as learn about its many collections, special exhibits, and heritage.

### TUESDAY

#### Smart Shopping and Nutrition

► 6 Nov., 10 a.m., Penrose Guest Hospitality Suite

Grocery store and merchandise marketers use all kinds of psychological techniques to entice us to buy what *they* want us to buy. Learn ways to avoid some of these subtle traps, better understand product labels and become more educated on overall nutrition





## Call For Field Trip, Short Course, and Technical Session Proposals



It's already time to plan for our 2019 Annual Meeting in Phoenix, Arizona, USA. Help ensure that your area of research and expertise is represented at next year's annual meeting. Any individual or geoscience organization is welcome to submit proposals. The proposal form is online at [www.geosociety.org/amnext](http://www.geosociety.org/amnext).

**Show** the geology by leading a scientific Field Trip.

**Field Trip proposal deadline:** 3 Dec. 2018

Trips can be anywhere from a half day to five days long. Field trip proposals may be submitted by any member of GSA, its affiliated societies, or anyone else.

**Exchange** the geology by organizing and chairing a Technical Session.

**Technical Session deadline:** 1 Feb. 2019

Proposals are being taken for both Pardee Keynote and Topical Sessions.

**Share** the geology as an instructor through a Short Course.

**Short Course proposal deadline:** 1 Feb. 2019

Courses run the Friday and Saturday before the Annual Meeting and are typically a half day to two full days.



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# Alumni Receptions

## Private Receptions

These individual receptions (listed in alphabetical order as received before the program print deadline) will take place at the JW Marriott Indianapolis unless otherwise noted. For the most current listing of private alumni receptions, times, and locations, please check the mobile app.

EVENT	LOCATION	TIME
<b>Monday</b>		
Amherst College	JW Marriott, Room 307	5–7 p.m.
Carleton College	JW Marriott, Room 306	6:30–8:30 p.m.
College of William and Mary–Virginia Tech–James Madison University–University of Virginia–Ireland Field Course Joint Alumni Reception	JW Marriott, JW Grand Ballroom Section 2	7–9 p.m.
Colorado School of Mines: Geology and Geological Engineering Alumni Event	JW Marriott, White River Ballroom Section F	6–9 p.m.
Indiana University	JW Marriott, Grand Ballroom Section 7	7–9 p.m.
Iowa State University	Scotty's Brewhouse (1 Virginia Ave.)	7–9:30 p.m.
Ireland Field Course–College of William and Mary–Virginia Tech–James Madison University–University of Virginia Joint Alumni Reception	JW Marriott, JW Grand Ballroom Section 2	7–9 p.m.
James Madison University–College of William and Mary–Virginia Tech–University of Virginia–Ireland Field Course Joint Alumni Reception	JW Marriott, JW Grand Ballroom Section 2	7–9 p.m.
Michigan Colleges/Universities Joint Alumni Reception (Cosponsored by Albion College; Central Michigan University; Grand Valley State University; Hope College; Wayne State University)	JW Marriott, JW Grand Ballroom Section 8	6–8 p.m.
Michigan State University–University of Illinois at Urbana-Champaign Joint Alumni Reception	The Capital Grille (40 West Washington St.)	5:30–7:30 p.m.
Ohio State University Alumni Reception	JW Marriott, Room 309	7–10 p.m.
Oregon State University Alumni Reception	Rock Bottom Restaurant	5:30–7:30 p.m.
Penn State Geosciences Annual Alumni Reception	Osteria Pronto (JW Marriott)	5:30–8 p.m.
Princeton University–Yellowstone Bighorn Research Association (YBRA) Alumni Reception	JW Marriott, White River Ballroom Section C	7–9 p.m.
Purdue EAPS Alumni & Friends Reception	JW Marriott, Room 101	7–9 p.m.
Rio Grande Universities Alumni Reception (Cosponsored by New Mexico State University; New Mexico Tech; University of Texas at El Paso)	JW Marriott, White River Ballroom Section E	7–10 p.m.
Stanford University School of Earth, Energy & Environmental Sciences Alumni Event	JW Marriott, Room 308	5:30–7 p.m.
Syracuse University Alumni Reception	Hard Rock Cafe (49 S. Meridian St.)	7–9:30 p.m.
University of Arizona Geosciences Reception	JW Marriott, White River Ballroom Section B	6–8 p.m.
University of Cincinnati Alumni Reception	JW Marriott, White River Ballroom Section I	6:30–9 p.m.
University of Illinois at Urbana-Champaign–Michigan State University Joint Alumni Reception	The Capital Grille (40 West Washington St.)	5:30–7:30 p.m.
University of Iowa Dept. of Earth and Environmental Sciences	JW Marriott, Room 305	6:30–8:30 p.m.
University of Kansas Alumni Reception	JW Marriott, JW Grand Ballroom Section 1	7–9:30 p.m.
University of Michigan Alumni Reception	JW Marriott, JW Grand Ballroom Section 9	6–8 p.m.

EVENT	LOCATION	TIME
University of Minnesota Alumni Reception	JW Marriott, White River Ballroom Section J	7–10 p.m.
University of North Carolina (UNC) Chapel Hill Alumni Reception	JW Marriott, White River Ballroom Section G	6–8 p.m.
University of Texas at Austin Jackson School of Geosciences Friends and Alumni Networking Reception	RAM Restaurant and Brewery (140 S. Illinois St.)	6–8 p.m.
University of Utah	JW Marriott, White River Ballroom Section H	6:30–8:30 p.m.
University of Virginia–College of William and Mary–Virginia Tech–James Madison University–Ireland Field Course Joint Alumni Reception	JW Marriott, JW Grand Ballroom Section 2	7–9 p.m.
University of Washington	JW Marriott, Room 104	7–9 p.m.
University of Waterloo Alumni Cocktail Reception	JW Marriott, Room 310	7–10 p.m.
Virginia Tech–College of William and Mary–James Madison University–University of Virginia–Ireland Field Course Joint Alumni Reception	JW Marriott, JW Grand Ballroom Section 2	7–9 p.m.
Williams College Alumni Reception	Off-site Location	5:30–7:30 p.m.
Yellowstone Bighorn Research Association (YBRA)–Princeton University Joint Alumni Reception	JW Marriott, White River Ballroom Section C	7–9 p.m.

## Alumni Receptions

### Group Reception

Monday, 7–9:30 p.m., JW Marriott Indianapolis, Grand Ballroom Section 5

The alumni of the following schools (as of the program print deadline) will gather by their respective signs on Monday night for the group reception.



Bucknell University

Oberlin College

Colby College

Rutgers University

College of Wooster

Smith College

Franklin & Marshall College

Southern Illinois University

Hamilton College

Trinity University

Middlebury College Geology

University of North Dakota

Northern Arizona University  
Alumni Reception



**4–7 November**  
**Indianapolis, Indiana, USA**