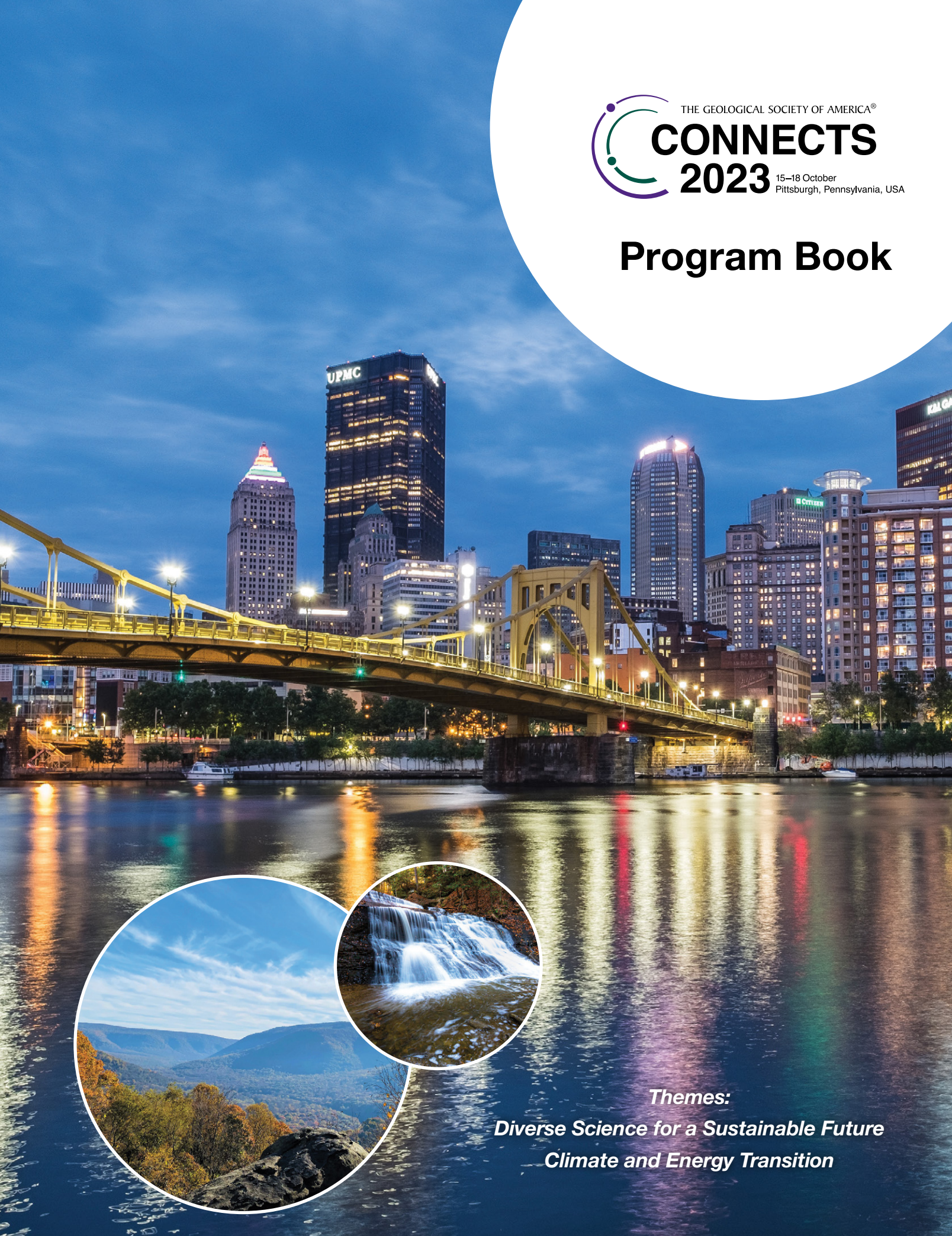




Program Book



Themes:

*Diverse Science for a Sustainable Future
Climate and Energy Transition*



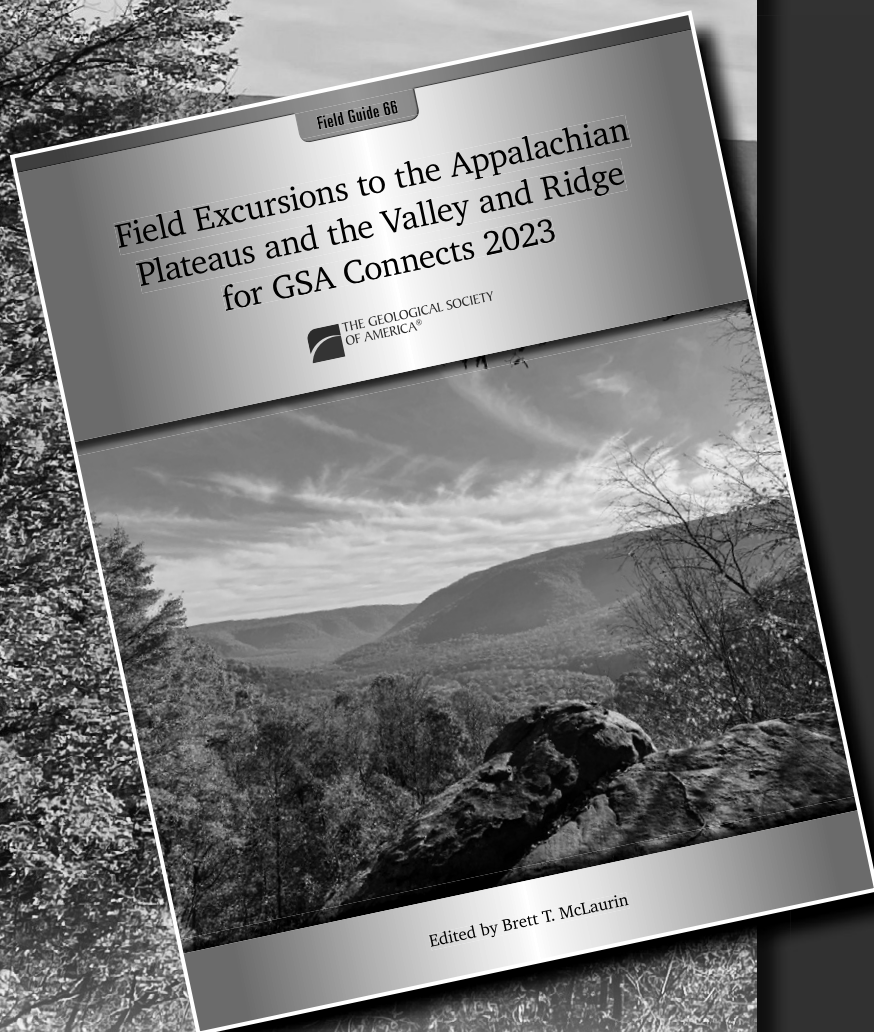
Field Excursions to the Appalachian Plateaus and the Valley and Ridge for GSA Connects 2023

Edited by Brett T. McLaurin

This volume offers guides for GSA Connects 2023 in Pittsburgh, Pennsylvania, USA, that cover a diverse range of geologic time and processes from the Paleozoic to Recent. Chapters address Paleozoic and Pleistocene glaciation; the interplay of geology and climate in shaping the landscape; and aspects of cultural geology, including Frank Lloyd Wright's Fallingwater and the setting of Youngstown, Ohio.

FLD066, 248 p., ISBN 9780813700663

IN PRESS



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The city of Pittsburgh is located on the unceded lands of the Shawandasse Tula, the Osage peoples, the Monangahela peoples, and the Seneca peoples, and were later joined by refugees of other tribes who were forced off of their lands and displaced by European colonists. We acknowledge these early stewards of this land, their elders both past and present, as well as future generations.

We encourage all GSA Members and meeting attendees to learn about the past history and the present status of the people whose lands you live and work on.

Cover caption: Pittsburgh skyline at night. Photo by Lance Anderson on Unsplash. Insets: Ohiopyle Baughman Rock Overlook. Photo by Fred Zelt. Beautiful view of Hell's Hollow Falls at McConnells Mill State Park. Photo credit: iStock.com/Wirestock.

Welcome from GSA's President

I'm excited to welcome you to GSA Connects 2023, 15–18 Oct., in Pittsburgh, Pennsylvania. Pittsburgh, at the confluence of three major American rivers, is an historic city with a modern vibe, which makes it an excellent venue for our meeting.

This meeting affords many opportunities for scientific engagement and networking with colleagues. Themes for Connects 2023 center around *Diverse Science for a Sustainable Future* and the *Climate and Energy Transition*, with numerous sessions focused on these important topics. As always, there will be groundbreaking symposia and topical sessions across all the geoscience disciplines. The exhibit hall will be a lively space with our vendors and sponsors. We have a wealth of field trips available, including excursions to see caverns and karst, explore Paleozoic stratigraphy in the Appalachian Basin, and even examine the connections between geology and architecture at Frank Lloyd Wright's Fallingwater.

Our Pardee Symposia will cover a wide range of issues, from critical minerals to the future of waste management. There's also an important session on encouraging positive mental health in the geosciences. This year's Halbouty Distinguished Lecture will be delivered by Susan Brantley, who will discuss fracking and its impacts on our water. On Sunday morning (15 Oct.), consider joining the "Outdoor Afro & GSA Riverwalk!" for a leisurely riverwalk and casual discussion of the geosciences with Outdoor Afro, a national organization dedicated to reconnecting Black people and Black communities to nature.

At the Awards Ceremony, we'll celebrate the outstanding achievements of our GSA members and fellows, from early career professionals to senior scientists. My presidential address will focus on "geoscience at the confluence." The geosciences sit squarely at confluence of time and place, which makes our field rather unique. It'll be a wide-ranging talk that highlights the joy of scientific discovery. If you can, take time out of your meeting to join the GSA community and attend the Awards Ceremony—it'll be time well spent.

Enjoy GSA Connects 2023 and the city of Pittsburgh.

Thanks, and see you soon.



A handwritten signature in black ink that reads "Chuck M. Bailey". The signature is written in a cursive, flowing style.

Christopher "Chuck" M. Bailey
GSA President

Welcome from GSA's Executive Director and CEO

Dear Esteemed Members, Guests, and Colleagues,

As the new Executive Director and CEO of The Geological Society of America, it's a true privilege to welcome you, alongside president Christopher "Chuck" M. Bailey, to GSA Connects 2023. We are here to celebrate the vibrant tapestry of geological sciences, gathered in the spirit of community, learning, and growth. This year's themes, *Diverse Science for a Sustainable Future* and *Climate and Energy Transition*, speak to the timely and critical issues that unite us all.

This year has been a transformative one for GSA, and those changes are palpably reflected in this meeting, heralding a new era of possibilities, engagement, and excellence.

Revitalized Membership Experience

At the heart of our Society are its members—you. To acknowledge this, we have put an added emphasis on membership with exclusive benefits. The newly expanded GSA HQ Pavilion now showcases all 22 of GSA's scientific divisions, serving as a nexus for diverse scientific dialogues, collaborations, and professional opportunities. As a special feature, new and renewing members will receive an exclusive bag featuring art from renowned geology artist Ray Troll.

Technology and Branding Upgrades

We have deployed technology upgrades designed to augment your attendee experience. Our new marketing initiative, "Learning to Legacy," is conceived to underline the idea that regardless of your career stage in the geosciences—from students to seasoned experts—your community is right here at GSA.

Mental Wellness: A Core Concern

This year, we are also leading the charge on an often overlooked yet immensely crucial issue—mental wellness in the scientific community. Advancing science and fostering a sense of inclusive community starts and ends with practitioners at their best, both mentally and emotionally.

Inclusion and Sustainability

At the core of this year's theme is the unity of diverse scientific thought, focused on the ambitious but essential goals of sustainability and energy transition. Our panel discussions, workshops, and presentations are geared toward instigating transformative conversations and inspiring actionable insights.

It is our sincere hope that this meeting serves as your first glimpse into a reinvigorated GSA—a society deeply committed to its members and the broader scientific community. Your presence here is a testament to your role in this incredible journey that we undertake as a collective.

Thank you for being a part of GSA Connects 2023. Let us venture together into a future replete with scientific discovery, personal growth, and meaningful change.

Warm regards,



Melanie Brandt
EXECUTIVE DIRECTOR AND CEO

Thank You Sponsors and Partners!*

Your support of GSA Connects 2023 continues a long-standing tradition of serving science and the profession. The Society appreciates your investment in the growth of current and future leaders in the geoscience community.

**as of 8 September 2023*

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Greetings from the General Co-Chairs

We are pleased to welcome you to Pittsburgh for GSA Connects 2023! Pittsburgh is a city built on geology and steeped in history. Located at the point where the Monongahela and Allegheny rivers join to form the Ohio, this confluence forms a part of human history spanning millennia. The nearby massive sandstone overhangings of the Meadowcroft Rockshelter preserve records of Indigenous activity dating back 19,000 years, and ancient Adena burial mounds rise in conical symmetry from local landscapes. In colonial times, the strategically located settlement started its life as a series of five forts: Prince George (British, 1754); Duquesne (French, 1754); Pitt (British, 1758); Mercer, temporary during construction of Fort Pitt; and Lafayette (American, 1792). The city grew on the backs of river commerce, coal, and steel. The rich Pittsburgh Coal seam lies below the city, but the higher parts of the Pennsylvanian-age section are displayed in steep cliffs and hillsides throughout the city. The rugged topography along the three rivers leads to a transportation system that is a web of bridges and tunnels and that can also lead to a high incidence of landslides. Pittsburgh is truly an engineering marvel. A ride on the Incline up Mount Washington or a river cruise on the Gateway Clipper will give you a first-hand feel for the landscape.

The city you are visiting is much different from the last time Pittsburgh hosted the GSA Annual Meeting in 1959. Coal and steel have ceded prominence to natural gas, carbon and energy storage, technology, education, and medicine. The legacy lives on, though, in the many art, cultural, and educational resources associated with industrialists Andrew Carnegie and Henry Clay Frick, banker Andrew Mellon, and food manufacturer H.J. Heinz.

If you want a break from the meeting, you can find many fine museums that fit a variety of interests, including the avant-garde pop art of Pittsburgh native Andy Warhol, whose name-sake museum is located within walking distance of the meeting venue. The heritage of European immigrants who came to mine coal and make steel lives on in great ethnic restaurants, especially German, Polish, and Italian. A stroll down Smallman Street in the nearby Strip District not only affords a cacophony of sights, smells, and all the black-and-gold attire you never knew you needed, but also offers a glimpse into the melting pot of cultures that shapes the city's history. Pittsburgh has a great food scene, from sandwich shops like Primanti Brothers (fries right on the sandwich!) to brats to fine dining, with local breweries and distilleries for something to wash it all down. If you have time to get out of town, Ohionyle State Park with its Class 3 whitewater, Frank Lloyd Wright's Fallingwater, and the Drake Well Museum chronicling the birth of the petroleum industry are all an hour or two away, along with any number of other great hikes, parks, and historic sites.

Our meeting venue, the David L. Lawrence Convention Center, sits just 100 yards from the point on the Allegheny River where William Clark launched his newly constructed keelboat and sailed down the Ohio to join Meriwether Lewis and begin their Corps of Discovery Expedition into the wild expanses of the western territories. It is with that spirit of intrepid exploration, inquiry, and discovery that we welcome you to Pittsburgh for GSA Connects 2023.

Yinz have a good time!



Gale Blackmer
Pennsylvania
State Geologist
GSA Connects 2023
General Co-Chair



Jessica Moore
West Virginia
State Geologist
GSA Connects 2023
General Co-Chair

Information Pages

(in alphabetical order)

DLCC—David L. Lawrence Convention Center

Accommodation and Services



All-Day Poster Sessions

DLCC, Hall B

Sun.–Wed., 8 a.m.–5:30 p.m.

Posters can be viewed all day, with presenting authors at their posters from either 9–11 a.m. or 3:30–5:30 p.m. Presenters can set up their posters starting at 7:30 a.m. on the day of presentation. Presentation times will be listed in the program.

Business Center

The closest business center is located one block from the DLCC at 960 Penn Avenue. For additional information, please call the local FedEx branch at +1-412-391-2014.

Campus Connection

DLCC, Hall A

Sun., 5–7 p.m.

Mon.–Tues., 10 a.m.–6:30 p.m.

Wed., 10 a.m.–2 p.m.

Coat and Luggage Check

DLCC, Concourse B

Sun.–Wed., 7:30 a.m.–6:30 p.m.

Coffee Breaks

DLCC

Sun., 9:30 a.m. (while supplies last) in Hall B

Mon.–Wed., 9:30 a.m. (while supplies last) in Halls A and B

Coffee will also be available for purchase at concessions.

Continuing Education Units

GSA Connects offers an excellent opportunity to earn CEUs toward your general continuing education requirements for your employer or K–12 school. Please check the meeting website after the meeting to download your CEU certificate. One CEU is a nationally recognized unit of achievement that is based on 10 contact hours of learning.

First Aid and Emergency Services

GSA is committed to providing a safe and secure meeting environment. The following are suggestions for how you can protect yourself in situations that may occur during the meeting. Always remember that if it is a life-threatening emergency, dial 911. If you are within the convention center or hotel, please notify a staff member or building employee to avoid delays with emergency responders. If an emergency or situation occurs at any time

during the meeting and you need additional assistance from GSA, please go to the GSA Registration Desk and notify a GSA staff member. Once 911 has been notified, advise your event manager or the Security Control Room by calling +1-412-325-6193. The Security Control Room is staffed 24 hours a day.

Pittsburgh Police Department, 2000 Centre Ave.: +1-412-255-2827
UPMC Mercy Hospital, 1400 Locust St.: +1-412-232-8111

Gender-Neutral Bathrooms

Gender-neutral bathrooms can be found in between every set of Male/Female stalls on every floor in the David L. Lawrence Convention Center.

GSA HQ Pavilion

Resource & Innovation Center, Hall A

Sun., 5–7 p.m.

Mon.–Tues., 10 a.m.–6:30 p.m.

Wed., 10 a.m.–2 p.m.

Purchase GSA books, donate to the GSA Foundation, become a member, and find out more about GSA programs.

GeoCareers Corner

Room 403/404/405

Sun.–Tues., 9 a.m.–5 p.m.

Drop-in mentoring, résumé review, career presentations, games, and coloring to relax.

Icebreaker

DLCC, Ballroom Gallery

Sat., 5–7 p.m.

Join thousands of industry professionals, students, academics, Divisions, and Associated Societies to kick off GSA Connects 2023.

Internet

Wi-Fi is complimentary in the Resource & Innovation Center and lobbies.

Information/Lost & Found Desk

DLCC, Concourse A

Sat., 7 a.m.–7 p.m.

Sun., 6:30 a.m.–6:30 p.m.

Mon.–Wed., 7 a.m.–4:30 p.m.

Each year, many items are left at the convention center after the meeting ends. We encourage you to check at the Information/Lost & Found Desk if you lose something or find something that is not yours. After the Information/Lost & Found Desk closes each day, items are transferred to the Security Office. After the meeting, these things come home to the GSA headquarters in Boulder, Colorado; we would like to return your things to you before then!

Lodging Information Assistance

If you have any issues with your hotel reservation during the meeting, please call +1-800-521-7845 (U.S. toll free) or +1-801-214-7276 (international) during regular hours of operation.

Sat., 2–6 p.m.

Sun., 10 am–6 p.m.

Mon.–Fri., 7 a.m.–6 p.m.

If you have issues outside of these hours, please contact your hotel's manager on duty.

Mothers' Room

A mothers' room is available on the second level of the DLCC. A phone is provided at the room's entrance to call a security guard to come and unlock the room. To protect the privacy of the individuals using this room, keys will not be provided.

Newsroom

DLCC, Room 409

Sun.–Wed., 7:30 a.m.–6 p.m.

The GSA newsroom will provide a workspace for registered media representatives and public information officers only.

Media should register and pick up badges and related information at the main Registration Desk.

Recycling and Sustainability

In furtherance of our mission to promote stewardship of Earth, GSA works continuously to minimize the environmental impacts associated with the planning and execution of all our meetings. To help meeting attendees who are committed to making GSA Connects 2023 a sustainable event, GSA offers the option for attendees to purchase carbon offset credits for their travel to/from Pittsburgh. The purchase of carbon offsets represents a reduction in emissions from a specific energy project to offset those created by air/auto travel. These carbon emission reduction projects would not be possible without the financial resources that your purchases provide. You can purchase credits during your registration process or after, by returning to your registration and adding them on (similar to adding on a field trip or short course), or purchase them onsite at the meeting. For more information, visit community.geosociety.org/gsa2023/registration/carbon.

Registration Desk

DLCC, Concourse A

Sat., 7 a.m.–7 p.m.

Sun., 6:30 a.m.–6:30 p.m.

Mon.–Tues., 7 a.m.–4:30 p.m.

Wed., 7 a.m.–2:30 p.m.

- Badges are required for access to all activities beginning on Sat., 14 Oct., and should be visible at all times.

- The guest or companion registration fee per person is available for non-geologist spouses or friends of professional and/or student meeting registrants.
- Check in at the on-site Registration Desk to purchase tickets for ticketed functions. Tickets are subject to availability.
- GSA cannot provide refunds for on-site registration or ticketed/special event sales.
- Attendees who have been notified that they should receive a ribbon for their badge should pick it up at the GSA ribbon board located by the Registration Desk.

Resource & Innovation Center

DLCC, Hall A

Sun., 5–7 p.m. (includes the opening reception)

Mon.–Tues., 10 a.m.–6:30 p.m.

Wed., 10 a.m.–2 p.m.

RISE & Events Code of Conduct Office

DLCC, Room 322

Sun., Tues., and Wed.: 8:30–11 a.m. and 1:30–4 p.m.

Mon.: 8:30–11 a.m. and 4:30–6 p.m.

If the office staff is not available or you want to make a report outside of these hours, please send an email to ethics@geosociety.org.

Self-Care Rooms

DLCC, Room 337 and Room 338

To gain access to the self-care rooms, please stop by the Registration Desk. You will be required to leave your ID and provide your cell phone number; a staff member will accompany you to the room to unlock it.

Speaker Ready Room

DLCC, Room 309

Sat., 8 a.m.–8 p.m.

Sun.–Tues., 6:30 a.m.–6:30 p.m.

Wed., 6:30 a.m.–1:30 p.m.

If your presentation is on

Sun., 15 Oct.

Mon., 16 Oct.

Tues., 17 Oct.

Wed., 18 Oct.

Upload no later than

8 p.m. Sat., 14 Oct.

6:30 p.m. Sun., 15 Oct.

6:30 p.m. Mon., 16 Oct.

6:30 p.m. Tues., 17 Oct.

Student Volunteer Office

DLCC, Room 402

Fri., 7 a.m.–5 p.m.

Sat.–Wed., 7 a.m.–6 p.m.

Special Lectures



Presidential Address

Christopher “Chuck” Bailey,
“Geoscience at the Confluence”

Sun., 15 Oct., noon–1:30 p.m.

The GSA Connects 2023 meeting in Pittsburgh, Pennsylvania, occurs at the confluence of the Allegheny and Monongahela rivers, which come together to become the mighty Ohio River. Using confluence as a metaphor, the Presidential Address will place the geosciences at the confluence of time and place. This wide-ranging talk will highlight the joy of discovery in geoscience research and its relevance for understanding our home planet and the future.



2023 Michel T. Halbouty Distinguished Lecture

Susan L. Brantley, “How Fracking Affects Our Water”

Tues., 17 Oct. 12:15–1:15 p.m.

“Fracking” of horizontal layers of shale at great depths has ushered in a new era of energy development in the United States. At the same time, shale-gas development has impacted water quality in some locations. In the mid-2000s, public outcry about fracking and water quality reached a fever pitch. Today, the pushback continues but is more muted. In this talk I will look at what has been learned over the last two decades about water impacts related to shale gas development (including fracking), with emphasis on geospatial analysis as well as case studies. Much of this talk will focus on Pennsylvania, a state with the longest history of commercial oil extraction in the world, but some observations will also be made about the national situation. Government, universities, and private industry must work more closely with communities to document impacts and understand case examples of water contamination. Only with such approaches will geologists and hydrogeochemists enable the public to make educated decisions about the “social license” for the industry at the same time that our practitioners learn to understand the public’s viewpoint on this distributed industry.

Noontime Lectures



Richard Alley, “Sea-level Rise: The Solid and the Scary”

Mon., 16 Oct., 12:15–1:15 p.m.

The ocean is rising into coastal communities because of human-caused warming. Ice loss from Antarctica and Greenland is contributing, and could accelerate in the future. History and physics show that

warming melts ice, and that too much warming can trigger rapid iceberg calving. Modern visitors to Glacier Bay in Alaska can now sail more than 60 miles into a fjord that held ice up to a mile thick when George Vancouver visited in 1794, and many other fjords have similarly “unzipped” into their mountains or ice sheet. If retreat of this type is triggered in any of the major Antarctic basins holding far more ice, more than 10 feet of additional sea-level rise could occur in the following century or less. Despite rapid scientific advances, large uncertainties remain. This presentation will explore the solid and speculative issues on sea-level rise.



Patrick A. Burkhart, “East Palestine, Ohio: Train Derailment and Chemical Incineration”

Wed., 18 Oct., 12:15–1:15 p.m.

Events of the early February 2023 train derailment and ensuing circumstances will be presented and discussed by Patrick A. Burkhart, Ph.D., Hydrogeologist, Slippery Rock University of Pennsylvania.

Pardee Keynote Symposia

All Pardee Keynote Symposia, listed here in chronological order, take place in Pittsburgh Ballroom B/C at the David L. Lawrence Convention Center. Each session will be transcribed on-screen in real time.

P1. Land of Our Ancestors Submerged by a Lake of Betrayal.

Mon., 16 Oct., 8 a.m.–noon

Endorsers: *History of Earth Sciences Society (HESS); GSA History and Philosophy of Geology Division*

P2. Spotlight on Positive and Diverse Female Role Models.

Mon., 16 Oct., 1:30 p.m.–5:30 p.m.

Endorsers: *Association for Women Geoscientists; GSA Continental Scientific Drilling Division; GSA Energy Geology Division; GSA Environmental and Engineering Geology Division; GSA Geoarchaeology Division; GSA Geobiology and Geomicrobiology Division; GSA Geochronology Division; GSA Geoinformatics and Data Science Division; GSA Geology and Society Division; GSA Geophysics and Geodynamics Division; GSA Hydrogeology Division; GSA Karst Division; GSA Limnogeology Division; GSA Marine and Coastal Geoscience Division; GSA Mineralogy, Geochemistry, Petrology, and Volcanology Division; GSA Planetary Geology Division; GSA Quaternary Geology and Geomorphology Division; GSA Soils and Soil Processes Division*

Sponsored by Subaru

P3. Addressing Society's Urgent Need for Critical Minerals: From Policy to Practice.

Tue., 17 Oct., 8 a.m.–noon

Endorsers: *GSA Geology and Society Division; GSA Energy Geology Division; GSA Environmental and Engineering Geology Division; GSA Mineralogy, Geochemistry, Petrology, and Volcanology Division; GSA Geology and Public Policy Committee; Securing America's Future Energy (SAFE) Center for Critical Minerals Strategy; International Association for Promoting Geoethics*

P4. Encouraging Positive Mental Health in the Geosciences.

Tue., 17 Oct., 1:30 p.m.–5:30 p.m.

Endorsers: *International Association for Geoscience Diversity; U.S. National Committee for Geological Sciences; U.S. National Committee for Psychological Sciences; U.S. National Committee for Soil Sciences; U.S. National Committee for Quaternary Research; U.S. National Committee for Geodesy and Geophysics; GSA Continental Scientific Drilling Division; GSA Environmental and Engineering Geology Division; GSA Geoarchaeology Division; GSA Geochronology Division; GSA Geoinformatics and Data Science Division; GSA Geology and Health Division; GSA Geology and Society Division; GSA Geophysics and Geodynamics Division; GSA Geoscience Education Division; GSA Hydrogeology Division; GSA Limnogeology Division; GSA Marine and Coastal Geoscience Division; GSA Mineralogy, Geochemistry, Petrology, and Volcanology Division; GSA Planetary Geology Division; GSA Quaternary Geology and Geomorphology Division*

P5. Past, Present, and Future of Waste Management.

Wed., 18 Oct., 8 a.m.–noon

Endorsers: *GSA Environmental and Engineering Geology Division; GSA Energy Geology Division; GSA Geology and Health Division; GSA Geology and Society Division; GSA History and Philosophy of Geology Division; GSA Hydrogeology Division; GSA Soils and Soil Processes Division*

Special Session

Are We Alone in the Universe? The Science and Strategies to Search for Evidence of Past Life on Earth, the Solar System, and Beyond

In Memory of Jack Farmer—Father of Exopaleontology, Face of Astrobiology, Teacher to Thousands Around the World

Poster Session: Sun., 15 Oct., 8 a.m.–5:30 p.m., David L. Lawrence Convention Center, Hall B
Presenters available 9–11 a.m.

Oral Session: Sun., 15 Oct., 1:30–5:30 p.m., David L. Lawrence Convention Center, Room 335

Advocates: Maria Farmer, Alice Baldrige, Nicholas Lang, Sherry Cady

Endorsers: *GSA Planetary Geology Division; GSA Geobiology Geomicrobiology Division. ExxonMobil, NASA/Jet Propulsion Lab*

From microbes to Mars, paleontology to planetary protection, science education to a strategy for solar system exploration. The legacy of one man's works chipped away at the centuries-old question: Are we alone in the universe? Following Jack's comprehensive approach to his work that integrated what seemed like disparate fields into a unified interdisciplinary approach that revolutionized the search for life in the universe and influenced the creation of groundbreaking fields in space exploration such as astrobiology and exopaleontology.



Respectful, Inclusive Scientific Events (RISE)

Let's work together to make this event safe and professional, creating an atmosphere where all participants feel welcome and can count on being treated with dignity and respect. Here are some simple tips we can all follow to make this a Respectful, Inclusive Scientific Event (RISE):

Show Respect

- Keep questions concise and on topic.
- Be considerate and listen with an open mind.
- Be constructive—critique ideas, not people.
- Avoid saying or doing anything that is or is likely to be perceived as harassment or bullying.

Speak Up and Act Responsibly

- Read and comply with GSA's Events Code of Conduct.
- Ask questions or report concerns—openly or anonymously—to our third-party hotline provider via:
 - Internet: geosociety.ethicspoint.com
 - Phone: +1-844-237-8688
 - Mobile: geosociety.navexone.com
- Direct any questions or concerns to ethics@geosociety.org or any GSA staff member or RISE Liaison. You also may visit GSA's RISE & Events Code of Conduct Office during the meeting.

GSA takes all concerns seriously and will respond promptly and fairly to evaluate and address potential issues, as appropriate, to keep this event safe and professional.

RISE & Events Code of Conduct Office

DLCC, Room 322

Sun., Tues., and Wed.: 8:30–11 a.m. and 1:30–4 p.m.

Mon.: 8:30–11 a.m. and 4:30–6 p.m.



**STUDENT & EARLY
CAREER**

**NIGHT
AT THE
MUSEUM**

**15 OCTOBER 2023
TICKETS: \$25**



INVITED GUESTS:

**GSA FELLOWS
TICKETS: \$65**

- ★ **NETWORKING**
- ★ **FOOD**
- ★ **FUN**
- ★ **GAMES**
- ★ **PRIZES**

**TICKETS AVAILABLE
FOR PURCHASE
DURING CONNECTS 2023
REGISTRATION**

The Geological Society of America®

GEOCAREERS

YOUR GUIDE TO CAREER SUCCESS



GeoCareers Corner

15–17 October

9 a.m.–5 p.m., Room 403/404/405

Career Presentations

Résumé Review Clinic

Drop-In Mentoring

Early Career
Professional Coffee

Navigating a Professional
Meeting

Women in Geology
Program

Networking Event

Geology Club Meet Up

View Job Postings

GeoCareers Day

15 October

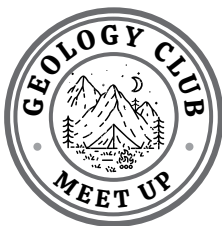
9 a.m.–1 p.m., Ballroom A

Career Workshop

Mentoring Roundtables

Panel Lunch

Talk with organizations and company representatives at their booths!



Network with students from other universities by sharing ideas and resources at GSA Connects on Tuesday, 17 Oct. from 9–10 a.m. in Room 403/404/405 (GeoCareers Corner). GSA is creating events specifically for geology clubs, attend for more information!

Joint Technical Program Committee Representatives

2023 Technical Program Chair: Patrick Albert Burkhart
2023 Technical Program Vice-Chair: Kevin Lee Mickus

Associated Societies

Association of Earth Science Editors: Monica Gaiswinkler Easton
Council on Undergraduate Research Geosciences Division: Elizabeth A. Heise, Claire McLeod
Geochemical Society: Frank Ramos
Geoscience Information Society: Robert Tolliver
Mineralogical Society of America: Philip Brown
National Association of Geoscience Teachers: Katherine Ryker
Paleontological Society: John Warren Huntley, Sarah M. Jacquet, James D. Schiffbauer, Rene A. Shroat-Lewis
Society of Economic Geologists: Thomas Monecke
Society for Sedimentary Geology: Howard Harper

GSA Scientific Divisions

Continental Scientific Drilling Division: Michael M. McGlue
Energy Geology Division: Marc L. Buursink, Denise J. Hills
Environmental and Engineering Geology Division: Francis Kevin Rengers, Anne C. Witt, Ann M. Youberg
Geoarchaeology Geology Division: Samantha Marie Krause, Scott H. Pike
Geobiology and Geomicrobiology Division: Brandt M. Gibson, Lydia Schiavo Tackett
Geochronology Division: Brad E. Rosenheim, Eugene Szymanski
Geoinformatics and Data Science Division: Denise J. Hills, Andrew Alexander Zaffos
Geology and Health Division: Reto Giere, Laura Suzanne Ruhl
Geology and Society Division: M. Scott Harris, James A. Heller
Geophysics and Geodynamics Division: Shannon A. Dulin, Anjana K. Shah
Geoscience Education Division: Larry Collins, Elizabeth Gammel-Kenderes, Katherine Ryker, Sydney Donohoe Steele
History and Philosophy of Geology Division: Patricia Bobeck, Renee M. Clary

Hydrogeology Division: Paul Stackelberg
Karst Division: Daniel Jones
Limnogeology Division: Kirsten M. Menking, Scott W. Starratt
Marine and Coastal Geoscience Division: Scott W. Starratt, Lauren T. Toth
Mineralogy, Geochemistry, Petrology and Volcanology Division: J. Alex Speer, Alan Whittington, Elisabeth Widom
Planetary Geology Division: Samuel Birch, Debra Buczkowski, Jennifer L. Piatek
Quaternary Geology and Geomorphology Division: Arjun M. Heimsath, Bradley G. Johnson, Mark R. Sweeney
Sedimentary Geology Division: William Thomas Jackson, Jr., Edward Matheson
Soils and Soil Processes Division: Emily Jane Beverly, Lauren A. Michel
Structural Geology and Tectonics Division: Ramon Arrowsmith, Eric Cowgill, John Selwyn Singleton

Representatives at Large

GSA International Member Community: Mary S. Hubbard
Paleoclimatology and Paleoceanography: Miriam E. Katz
Precambrian Geology: Gregory Dumond
Traditional Ecological Knowledge: Kenneth D. Ridgway

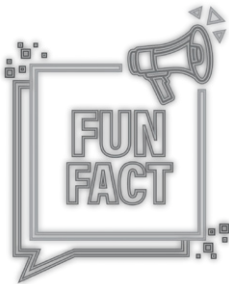
Annual Program Committee Representatives

Tiffany Rivera
Matthew Brueseke
Patrick Burkhart
Robinson Cecil
Kristen Cook
Saugata Datta
Miquela Ignalls
Kevin Mickus
Abhijit Mukherjee
Oyewande Ojo
William Sager



TRIVIA

Test your geoscience knowledge by finding all the trivia displays posted around GSA Connects 2023!



Want to know the answer?

Visit the GSA Membership Booth in the Resource & Innovation Center and ask our membership team!

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SCAVENGER HUNT

Starting in the Resource & Innovation Center, scan the first QR code at the entrance.

Follow the clues to find the remaining QR codes.

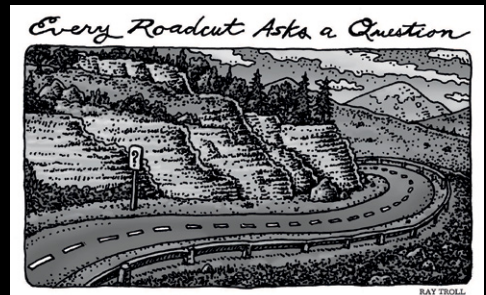
Insider Tip: QR codes may not be in plain sight, you may have to ask an exhibitor for help!



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YOUR
MEMBERSHIP
AT THE
GSA MEMBERSHIP
BOOTH
(HALL A/B)
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RAY TROLL TOTE BAG!

AT GSA, MEMBERS GET MORE!

Exhibitors

Alphabetical by category

Education and Environment

American Geosciences Institute, Booth 715
American Museum of Natural History, Booth 1234
Association of State Boards of Geology (ASBOG), Booth 1130
Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI), Booth 409
EarthScope Consortium, Booth 612
IUGS Deep-time Digital Earth (DDE), Booth 418
Pennsylvania Council of Professional Geologists, Booth 1215
Scientific Ocean Drilling Lamont-Doherty Earth Observatory, Booth 1231
Western Science Center, Booth 420
Yellowstone Bighorn Research Association (YBRA), Booth 734

Gems/Mineral Dealers/Jewelry

IKON Mining & Exploration, Booth 1011

Government Agencies

NASA / National Aeronautics & Space Administration, Booth 605
National Park Service, Booth 712
National Science Foundation, Booth 1027
U.S. Geological Survey, Booth 713

GSA Associated Societies

AASP - The Palynological Society, Booth 414
American Institute of Professional Geologists (AIPG), Booth 1128
Association for Women Geoscientists, Booth 1221
Association of American State Geologists (AASG), Booth 1129
Association of Earth Science Editors (AESE), Booth 816
Cushman Foundation, Booth 413
European Geosciences Union (EGU), Booth 635
International Association for Geoscience Diversity, Booth 1127
National Association of Geoscience Teachers, Booth 513
National Cave and Karst Research Institute, Booth 811
Paleontological Research Institution, Booth 419
SEPM Society for Sedimentary Geology, Booth 626
Sigma Gamma Epsilon, Booth 914
The Geological Society of London, Booth 613
The Paleontological Society, Booth 412

GSA Headquarters & Divisions

Located in the center of the Headquarters Pavilion:

GSA Bookstore, Foundation, Membership, and Opportunities

Division tables are located around the perimeter of the Headquarters Pavilion

GSA Continental Scientific Drilling Division, Table 1
GSA Energy Geology Division, Table 2
GSA Environmental & Engineering Geology Division, Table 3
GSA Geoarchaeology Division, Table 4
GSA Geobiology & Geomicrobiology Division, Table 5
GSA Geochronology Division, Table 6
GSA Geoinformatics & Data Science, Table 7
GSA Geology & Health Division, Table 8
GSA Geology & Society Division, Table 9

GSA Geophysics & Geodynamics Division, Table 10
GSA Geoscience Education Division, Table 11
GSA History & Philosophy of Geology Division, Table 12
GSA Hydrogeology Division, Table 13
GSA Karst Division, Table 14, and Booth 814
GSA Limnogeology Division, Table 15
GSA Marine & Coastal Geoscience Division, Table 16
GSA Mineralogy, Geochemistry, Petrology, and Volcanology (MGPV) Division, Table 17, and Booth 634
GSA Planetary Geology Division, Table 18
GSA Quaternary Geology & Geomorphology Division, Table 19
GSA Sections 2024, Booth 920
GSA Sedimentary Geology Division, Table 20
GSA Soils & Soil Processes Division, Table 21
GSA Structural Geology & Tectonics Division, Table 22

Instrumentation, Supplies, and Software

ASC Scientific, Booth 517
Blue Ridge Scientific Materials, Booth 916
Bruker Corporation, Booth 707
Brunton International LLC, Booth 821
Carl Zeiss Microscopy, LLC, Booth 504
Carlson Software, Inc., Booth 911
Continental Scientific Drilling Facility, Booth 818
Emriver, Inc., Booth 1010
Estwing Manufacturing Company, Booth 407
Field Environmental Instruments, Booth 1227
Forestry Suppliers, Inc., Booth 519
Geophysical Survey Systems, Inc (GSSI), Booth 617
Guideline Geo, Booth 1220
Isomass Scientific Inc., Booth 719
Isotopx Inc., Booth 1120
Macroscopic Solutions, Booth 1017
Proto Manufacturing, Booth 819
Rigaku Americas Corp., Booth 621
SciAps, Inc., Booth 505
Sensors & Software, Inc., Booth 1121
Thermo Fisher Scientific, Booth 721
Vapor Pin Enterprises, Inc., Booth 1119
Wingfield Scale & Measure, Booth 1228

Publications, Maps, Films

Cambridge University Press, Booth 812
East View Companies, Booth 919
GeoScienceWorld Booth 520
McGraw-Hill, Booth 1016-1017
Micropaleontology Press, Booth 417
Mountain Press Publishing Company, Booth 508
Oxford University Press, Booth 918
Pearson, Booth 619
Springer Nature, Booth 917
Treatise on Invertebrate Paleontology, Booth 421
W.W. Norton & Company, Inc., Booth 1126
Waveland Press, Booth 817

Services (Exploration, Laboratories, Consulting, and Others)

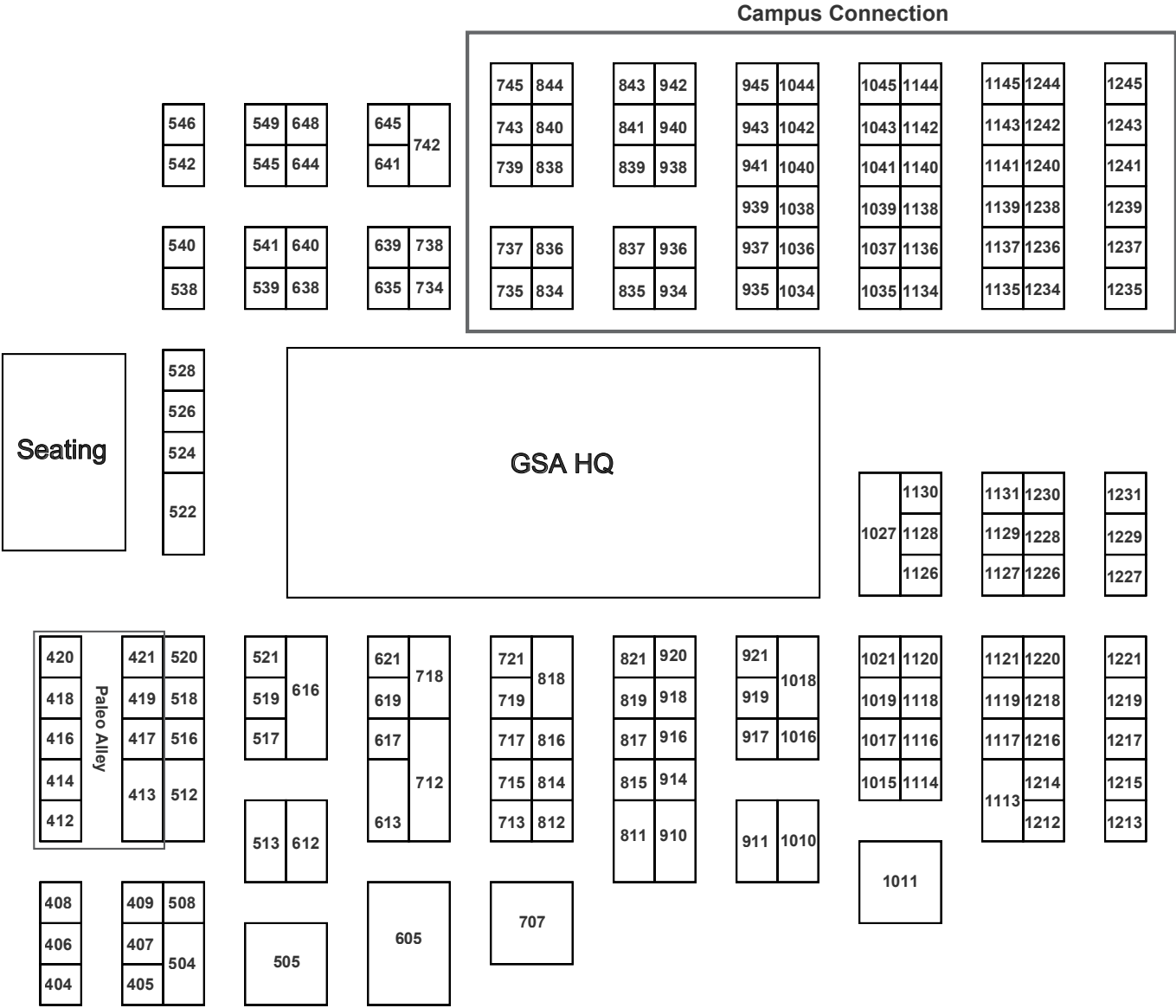
Beta Analytic Inc, Booth 521
EarthChem, Booth 921
Environmental Isotope Laboratory, Booth 717
GeoSep Services, Booth 1113
Iceland Geology Tours, Booth 1021
National Experienced Workforce Solutions, Booth 1229
ODM - Mineral Extraction Division, Booth 405
RIZZO International, Inc., Booth 406

Universities/Schools

Auburn University - Department of Geosciences, Booth 1035
Baylor University, Booth 834
Central Washington University, Booth 1140
Duquesne University School of Science & Engineering, Booth 1142
East Carolina University, Booth 1138
Indiana University Department of Earth and Atmospheric Sciences, Booth 910
Kansas State University, Booth 1235
Louisiana State University, Department of Geology & Geophysics, Booth 935
Miami University, Booth 1044
Missouri State University (GGP Department), Booth 945
Missouri University of Science and Technology, Booth 939
Oklahoma State University, Booth 838
Oregon State University, Booth 1134
Rice University, Booth 936
San Diego State University, Booth 1036
School for International Training, Booth 1243
South Dakota School of Mines and Technology, Booth 718
Syracuse University, Booth 1043

Texas A&M - Galveston, Booth 1041
Texas A&M University, Booth 1034
Texas Tech University, Booth 1037
University of Alaska Anchorage, Booth 1143
University of California - Davis, Earth & Planetary Sciences, Booth 743
University of Connecticut - Department of Geosciences, Booth 1039
University of Florida Geological Sciences, Booth 1038
University of Houston, Booth 938
University of Idaho, Booth 1136
University of Kansas, Booth 1237
University of Kentucky, Booth 1040
University of Michigan, Booth 1137
University of Minnesota, Earth and Environmental Sciences, Booth 841
University of Mississippi, Booth 739
University of Missouri, Booth 937
University of Nevada, Las Vegas, Booth 835
University of North Dakota, Booth 1042
University of Oklahoma, Booth 836
University of Pennsylvania, Booth 1131
University of Pittsburgh, Booth 1239
University of Southern California, Booth 1236
University of Texas at Dallas, Booth 737
University of Texas at San Antonio, Booth 940
University of Wisconsin - Madison, Booth 1045
University of Wisconsin - Milwaukee, Booth 1141
Vanderbilt University, Booth 837
Virginia Tech Department of Geosciences, Booth 941
West Virginia University, Booth 839
Western Michigan University, Booth 1139

Resource & Innovation Center Map



Alphabetical Listing of Events

DLCC—David L. Lawrence Convention Center

GEOLOGICAL SOCIETY OF AMERICA				
HOST NAME	EVENT NAME	DATE	TIME	LOCATION
GSA Hydrogeology Division	Birdsall-Dreiss and LaMoreaux International Distinguished Lecture Series	17 Oct.	5–6 p.m.	DLCC, Room 406
The Geological Society of America	Connects 2023 Icebreaker	14 Oct.	5–7 p.m.	DLCC, Concourse A / B
The Geological Society of America	Conversations and Collaborations	16 Oct. 17 Oct.	4:30–6:30 p.m.	DLCC, Hall A
The Geological Society of America	Drop-In Mentoring	15 Oct. 16 Oct. 17 Oct.	10 a.m.–3 p.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	Early Career Professional Coffee	16 Oct.	9–10 a.m.	DLCC, Room 403 /404 / 405
GSA DEI	Ethnicity and Identify Meetup: GeoComunidad	15 Oct.	2–3:30 p.m.	DLCC, Room 410
GSA DEI (Cosponsored by AAPiG)	Ethnicity and Identity Meetup: Asian American and Pacific Islander in Geoscience	16 Oct.	4:30–6 p.m.	DLCC, Room 410
GSA DEI	Ethnicity and Identity Meetup: Black in Geo	17 Oct.	4:30–6 p.m.	DLCC, Room 410
GSA DEI	Ethnicity and Identity Meetup: Indigenous and Native American in Geoscience	15 Oct.	3:30–5 p.m.	DLCC, Room 410
The Geological Society of America	GeoCareers Corner	15 Oct. 16 Oct. 17 Oct.	8 a.m.–5 p.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	GeoCareers Day *Ticketed Event*	15 Oct.	9 a.m.–1 p.m.	DLCC, Ballroom A
The Geological Society of America	GeoCareers Networking Event	16 Oct.	11:30 a.m.–1 p.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	Geology Club Meet-Up	17 Oct.	9–10 a.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	Global Geosciences Societies Meeting	18 Oct.	8–9:30 a.m.	The Westin Pittsburgh Hotel, Westmoreland East
The Geological Society of America	GSA 2023 Michael T. Halbouty Distinguished Lecture: Susan L. Brantley	17 Oct.	12:15–1:15 p.m.	DLCC, Ballroom B/C
The Geological Society of America	GSA Annual Program Committee Meeting	17 Oct.	7–8 a.m.	DLCC, Room 412
The Geological Society of America	GSA Best Student Geologic Mapping Competition	16 Oct.	1–3 p.m.	DLCC, Hall B
The Geological Society of America	GSA Communications Interview Room	15 Oct. –18 Oct.	7:30 a.m.–5 p.m.	DLCC, Room 313
The Geological Society of America HQ	GSA Council Meeting: Saturday Morning Session	14 Oct.	7:30 a.m.–12:15 p.m.	The Westin Pittsburgh Hotel, Pennsylvania Ballroom

(continued...)

Alphabetical Listing of Events

DLCC—David L. Lawrence Convention Center

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
The Geological Society of America	GSA Diversity in the Geosciences and On To the Future Alumni Reception	17 Oct.	6:30–8 p.m.	The Westin Pittsburgh Hotel, Westmoreland
The Geological Society of America	GSA Diversity in the Geosciences Committee Meeting	16 Oct.	1–2:30 p.m.	The Westin Pittsburgh Hotel, Somerset West
The Geological Society of America	GSA Division Chairs Business Meeting	14 Oct.	1–5 p.m.	The Westin Pittsburgh Hotel, Pennsylvania Ballroom
The Geological Society of America Publications Department	GSA Editorial Luncheon and Summit	16 Oct.	11:30 a.m.–1:30 p.m.	The Westin Pittsburgh Hotel, Cambria
The Geological Society of America	GSA Fireside Chats Circle Sunday	15 Oct.	5–7 p.m.	DLCC, Hall A
The Geological Society of America	GSA Fireside Chats Circle Monday	16 Oct.	10 a.m.–6:30 p.m.	DLCC, Hall A
The Geological Society of America	GSA Fireside Chats Circle Tuesday	17 Oct.	10 a.m.–6:30 p.m.	DLCC, Hall A
The Geological Society of America	GSA Fireside Chats Circle Wednesday	18 Oct.	10 a.m.–2 p.m.	DLCC, Hall A
GSA Foundation	GSA Foundation Penrose Circle and Student Awards Reception *Invitation Only*	16 Oct.	5:30–7:30 p.m.	The Westin Pittsburgh Hotel, Westmoreland West/Central
GSA Geology and Public Policy Committee	GSA Geology and Public Policy Committee Meeting	14 Oct.	11:30 a.m.–5 p.m.	The Westin Pittsburgh Hotel, Fayette
The Geological Society of America	GSA Geo-Teach Workshop	15 Oct.	8 a.m.–4 p.m.	The Westin Pittsburgh Hotel, Pennsylvania West
The Geological Society of America	GSA Group Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
GSA International (Cosponsored by <i>International Interdisciplinary Interest Group (IIIG)</i>)	GSA International-Hosted Business Meeting	15 Oct.	8:30–9:30 a.m.	The Westin Pittsburgh Hotel, Crawford East
GSA International (Cosponsored by <i>International Interdisciplinary Interest Group (IIIG)</i>)	GSA International-Hosted Reception: Welcome Attendees	16 Oct.	6:30–8:30 p.m.	The Westin Pittsburgh Hotel, Butler
The Geological Society of America	GSA Noontime Lecture: East Palestine, Ohio: Train Derailment and Chemical Incineration	18 Oct.	12:15–1:15 p.m.	DLCC, Ballroom B/C
The Geological Society of America	GSA Noontime Lecture: Sea-level Rise: The Solid and the Scary	16 Oct.	12:15–1:15 p.m.	DLCC, Ballroom B/C
The Geological Society of America	GSA Pardee Keynote Symposium P1: Land of Our Ancestors Submerged by a Lake of Betrayal	16 Oct.	8 a.m.–noon	DLCC, Ballroom B/C
The Geological Society of America	GSA Pardee Keynote Symposium P2: Spotlight on Positive and Diverse Female Role Models	16 Oct.	1:30–7 p.m.	DLCC, Ballroom B/C

(continued...)

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
The Geological Society of America	GSA Pardee Keynote Symposium P3: Addressing Society's Urgent Need for Critical Minerals: From Policy to Practice	17 Oct.	8 a.m.–noon	DLCC, Ballroom B/C
The Geological Society of America	GSA Pardee Keynote Symposium P4: Encouraging Positive Mental Health in the Geosciences	17 Oct.	1:30–5:30 p.m.	DLCC, Ballroom B/C
The Geological Society of America	GSA Pardee Keynote Symposium P5: Past, Present, and Future of Waste Management	18 Oct.	8 a.m.–noon	DLCC, Ballroom B/C
The Geological Society of America	GSA Presidential Address and Awards Ceremony: Christopher “Chuck” Bailey, “Geoscience at the Confluence”	15 Oct.	noon–1:30 p.m.	DLCC, Ballroom B/C
The Geological Society of America HQ	GSA President's Reception *Invitation Only*	15 Oct.	6:30–8:30 p.m.	The Westin Pittsburgh Hotel, Westmoreland
The Geological Society of America Publications Department	GSA Publications Committee	14 Oct.	1:30–4:30 p.m.	The Westin Pittsburgh Hotel, Cambria
The Geological Society of America	GSA Resource and Innovation Center Opening Reception	15 Oct.	5–7 p.m.	DLCC, Hall A
The Geological Society of America	GSA Section Meeting Roundtable Discussion	17 Oct.	2–3:30 p.m.	DLCC, Room 412
The Geological Society of America	GSA Session Chair Orientation	14 Oct. 15–17 Oct.	3–4 p.m. 12:15–1:15 p.m.	DLCC, Room 306 / 307
The Geological Society of America	GSA Student Volunteer Technical Session Coordinator Training	14 Oct. 15–17 Oct.	3–3:30 p.m. 12:15–12:45 p.m.	DLCC, Room 306 / 307
The Geological Society of America (Cosponsored by AGI)	GSA/AGI Joint Meeting	16 Oct.	1–3:30 p.m.	The Westin Pittsburgh Hotel, Pennsylvania Ballroom
The Geological Society of America	GSA/GSAF Audit Committee Meeting	13 Oct.	noon–4 p.m.	The Westin Pittsburgh Hotel, Somerset West
GSA Foundation	GSAF Board Meeting Fall 2023	14 Oct.	8 a.m.–4 p.m.	The Westin Pittsburgh Hotel, Allegheny II
GSA Hydrogeology Division	Henry Darcy Distinguished Lecture	16 Oct.	5–6 p.m.	DLCC, Room 406
The Geological Society of America	Honoring GSA's Lifetime Members *Invitation Only*	16 Oct.	7–8 a.m.	The Westin Pittsburgh Hotel, Allegheny I
The Geological Society of America	HQ Pavilion	15 Oct.	5–7 p.m.	DLCC, Hall A
The Geological Society of America	LGBTQIA+ Social	17 Oct.	7:30–9 p.m.	The Westin Pittsburgh Hotel, Pennsylvania West
The Geological Society of America	New GSA Members: Welcome Coffee	15 Oct.	7–8 a.m.	DLCC, Allegheny Overlook
The Geological Society of America	Open Mic Session	16 Oct.	noon–1 p.m.	DLCC
The Geological Society of America/Mark Little (Cosponsored by <i>Outdoor Afro Pittsburgh</i>)	Outdoor Afro & GSA Riverwalk!	15 Oct.	9:45–11:30 a.m.	DLCC, East Lobby

(continued...)

Alphabetical Listing of Events

DLCC—David L. Lawrence Convention Center

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
The Geological Society of America	Penrose and Thompson Field Forum Town Hall	16 Oct.	noon–1 p.m.	DLCC, Room 333
The Geological Society of America	Penrose Circle Lounge *Invitation Only*	15 Oct.	8 a.m.–4 p.m.	DLCC, Alcove A
The Geological Society of America	Poster Hall: Authors Present Sun.–Wed. 9–11 a.m. or 3:30–5:30 p.m.	15 Oct. –18 Oct.	8 a.m.–5:30 p.m.	DLCC, Hall B
The Geological Society of America	Presidential Photoshoot with Fellows	15 Oct.	10:30–11:45 a.m.	DLCC, Ballroom B/C
The Geological Society of America	Résumé/CV Review	15 Oct. –17 Oct.	10 a.m.–3 p.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	Rivers of Steel: Explorer Riverboat Cruise *Ticketed Event*	17 Oct.	4:30–6:30 p.m.	Explorer Riverboat
The Geological Society of America	Special Presentation Area Poster Hall	15 Oct.	7:30 a.m.–6:30 p.m.	DLCC, Hall B
The Geological Society of America	Student and Early Career Night at the Museum *Ticketed Event*	15 Oct.	7–9:30 p.m.	Senator John Heinz History Center
The Geological Society of America	Success in Publishing	15 Oct.	noon–1:30 p.m.	DLCC, Room 403 /404 / 405
The Geological Society of America	Women in Geology Reception	16 Oct.	5:30–7 p.m.	DLCC, Ballroom B/C

GSA DIVISIONS				
GSA Continental Scientific Drilling Division	GSA Continental Scientific Drilling Division Town Hall and Reception	15 Oct.	6:30–8 p.m.	DLCC, Room 413/414
GSA Energy Geology Division	GSA Energy Geology Division Banquet and Awards Reception	17 Oct.	6–7:30 p.m.	The Westin Pittsburgh Hotel, Fayette
GSA Environmental and Engineering Geology Division	GSA Environmental and Engineering Geology Division Business Meeting	15 Oct.	8–11 a.m.	DLCC, Room 411
GSA Environmental and Engineering Geology Division	GSA Environmental and Engineering Geology Division Awards Ceremony and Happy Hour *Ticketed Event*	17 Oct.	5:30–7:30 p.m.	DLCC, Room 325
GSA Environmental and Engineering Geology Division	Virtual Field Trip: Overview of Environmental and Engineering Geology	14 Oct.	8 a.m.–5 p.m.	Omni William Penn Hotel
GSA Geoarchaeology Division	GSA Geoarchaeology Division Business Meeting and Awards Ceremony	16 Oct.	5:45–7:30 p.m.	DLCC, Room 411
GSA Geobiology and Geomicrobiology Division	GSA Geobiology and Geomicrobiology Division Awards Reception	16 Oct.	noon–1:30 p.m.	The Westin Pittsburgh Hotel, Westmoreland Central
GSA Geochronology Division	GSA Geochronology Division Business Meeting and Reception	17 Oct.	6–8 p.m.	DLCC, Room 330
GSA Geochronology Division	GSA Geochronology Division Board Meeting	15 Oct.	5:30–7:30 p.m.	The Westin Pittsburgh Hotel, Pennsylvania East
GSA Geology and Health Division	GSA Geology and Health Division Business Meeting and Awards Luncheon	16 Oct.	Noon–1 p.m.	The Westin Pittsburgh Hotel, Washington

(continued...)

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
GSA Geology and Society Division	GSA Geology and Society Division Board and Membership Meeting	15 Oct.	3–5 p.m.	The Westin Pittsburgh Hotel, Crawford East
GSA Geophysics and Geodynamics Division	GSA Geophysics and Geodynamics Division Business Meeting and George Woollard Lecture	16 Oct.	noon–1 p.m.	DLCC, Room 329
GSA Geoscience Education Division	GSA Geoscience Education Division Educator's Reception	16 Oct.	6–9 p.m.	Olive or Twist
GSA History and Philosophy of Geology Division	GSA History and Philosophy of Geology Division Student Luncheon	17 Oct.	noon–1 p.m.	The Westin Pittsburgh Hotel, Butler West
GSA History and Philosophy of Geology Division	GSA History and Philosophy of Geology Division Business Meeting	17 Oct.	5–6:30 p.m.	The Westin Pittsburgh Hotel, Somerset West
GSA Hydrogeology Division	GSA Hydrogeology Division Management Board Meeting I	15 Oct.	11 a.m.–1:30 p.m.	DLCC, Room 412
GSA Hydrogeology Division	GSA Hydrogeology Division's BYOL and Awards Ceremony	17 Oct.	11:30 a.m.–1:30 p.m.	DLCC, Ballroom A
GSA Hydrogeology Division	GSA Hydrogeology Division Business Meeting	17 Oct.	1:30–2:30 p.m.	DLCC, Ballroom A
GSA Hydrogeology Division (Cosponsored by <i>GSA Environmental and Engineering Geology Division</i>)	GSA Hydrogeology Division and Environmental and Engineering Geology Division Careers and Networking Event	17 Oct.	3:30–5 p.m.	DLCC, Ballroom A
GSA Hydrogeology Division	GSA Hydrogeology Division Student Reception	17 Oct.	6–8 p.m.	DLCC, Ballroom A
GSA Hydrogeology Division	GSA Hydrogeology Division Management Board Meeting II	18 Oct.	7–9 a.m.	DLCC, Room 412
GSA Karst Division	GSA Karst Division Business Meeting and Brown Bag Awards Reception	16 Oct.	noon–2 p.m.	DLCC, Room 412
GSA Marine and Coastal Geoscience Division	GSA Marine and Coastal Geoscience Division Annual Meeting	16 Oct.	1–1:30 p.m.	The Westin Pittsburgh Hotel, Somerset East
GSA Marine and Coastal Geoscience Division	GSA Marine and Coastal Geoscience Division Mixer Private Alumni (Off-Site)	17 Oct.	5:30–7:30 p.m.	Bakersfield Restaurant
GSA Planetary Geology Division	GSA Planetary Geology Division Annual Banquet *Ticketed Event*	17 Oct.	7–10 p.m.	The Foundry Table & Tap
GSA Quaternary Geology and Geomorphology Division	GSA Quaternary Geology and Geomorphology Division Awards Program	17 Oct.	6:45–11 p.m.	DLCC, Ballroom B/C
GSA Quaternary Geology and Geomorphology Division	GSA Quaternary Geology and Geomorphology Board Meeting	15 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Cambria East
GSA Sedimentary Geology Division	GSA Sedimentary Geology Division Business Meeting	18 Oct.	7–9 a.m.	The Westin Pittsburgh Hotel, Somerset East
GSA Sedimentary Geology Division (Cosponsored by <i>GSA Limnology Division, SEPM</i>)	GSA Sedimentary Geology Division, Limnology Division & SEPM Joint Reception	17 Oct.	6–8 p.m.	DLCC, Room 413 / 414 / 415
GSA Soils and Soil Processes Division	GSA Soils and Soil Processes Division Business Meeting	17 Oct.	noon–1:30 p.m.	The Standard Market and Pint House
GSA Structural Geology and Tectonics Division	GSA Structural Geology and Tectonics Division Business Meeting and Awards Ceremony	17 Oct.	6–8 p.m.	DLCC, Room 301 / 302

(continued...)

Alphabetical Listing of Events

DLCC—David L. Lawrence Convention Center

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
GSA ASSOCIATED SOCIETIES				
Association for Women Geoscientists	Association for Women Geoscientists (AWG) Awards and Networking Breakfast *Ticketed Event*	16 Oct.	6:30–8:30 a.m.	DLCC, Ballroom A
Association for Women Geoscientists Foundation	Association for Women Geoscientists (AWG) Board of Directors Meeting	14 Oct.	9 a.m.–5 p.m.	The Westin Pittsburgh Hotel, Somerset West
Association of American State Geologists	Association of American State Geologists (AASG) Mid-Year Meeting	17 Oct.	7:30 a.m.–noon	The Westin Pittsburgh Hotel, Westmoreland Central
International Association for Geoscience Diversity (IAGD) (Cosponsored by <i>GSA DEI</i>)	Meetup: Geoscientists with Disabilities	16 Oct.	2–3:30 p.m.	DLCC, Room 410
Mineralogical Society of America (Cosponsored by <i>Gemological Institute of America</i>)	MSA/GIA Joint Reception	17 Oct.	6–8 p.m.	Carnegie Museums of Art and Natural History
Mineralogical Society of America	Mineralogical Society of America Awards Luncheon **Ticketed Event**	17 Oct.	noon–2 p.m.	The Westin Pittsburgh Hotel, Pennsylvania West
National Association of Geoscience Teachers (NAGT) (Cosponsored by <i>GSA Geoscience Education Division, Council on Undergraduate Research (CUR)</i>)	National Association of Geoscience Teachers (NAGT), GSA Geoscience Education Division, and Council on Undergraduate Research (CUR) Joint Awards Luncheon *Ticketed Event*	17 Oct.	11:30 a.m.–1 p.m.	The Westin Pittsburgh Hotel, Allegheny I
National Association of Geoscience Teachers (NAGT) (Cosponsored by <i>USGS</i>)	National Association of Geoscience Teachers (NAGT) and USGS Field Education Forum	15 Oct.	2:30–4 p.m.	The Westin Pittsburgh Hotel, Somerset
Paleontological Research Institution	Friends of the Paleontological Research Institution (PRI) Reception	16 Oct.	5:30–7 p.m.	Omni William Penn Hotel, Shadyside
Paleontological Society	2023 Paleontological Society Short Course: Diversity, Equity, and Inclusion in Paleontology: Application of Principles to Make Paleontology a More Just Discipline	14 Oct.	8 a.m.–5 p.m.	DLCC, Room 304 / 305
Paleontological Society	Paleontological Society (PS) Councilor and Friends Lunch	17 Oct.	noon–1:30 p.m.	DLCC, Room 411
Paleontological Society	Paleontological Society (PS) Business Meeting and Awards Reception Buffet *Ticketed Event*	15 Oct.	6:30–10:30 p.m.	DLCC, Ballroom A
Paleontological Society	Schuchert Talk and Student Social	16 Oct.	5–6:30 p.m.	DLCC, Room 324

(continued...)

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
ACADEMIC INSTITUTIONS, OTHER ORGANIZATIONS, AND GATHERINGS				
American Geosciences Institute	American Geosciences Institute Board of Directors Meeting	15 Oct.	8–11:30 a.m.	The Westin Pittsburgh Hotel, Butler East
American Geosciences Institute	American Geosciences Institute Board of Directors Training	15 Oct.	2–5 p.m.	The Westin Pittsburgh Hotel, Butler East
American Geosciences Institute	Friends of AGI Awards Reception	17 Oct.	5:30–7:30 p.m.	The Westin Pittsburgh Hotel, Cambria East
Climate Science Legal Defense Fund	Best Practices for Scientific Advocacy	16 Oct.	10–11 a.m.	DLCC, Room 331
Colgate University	Colgate University Geology Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
Eastern Michigan University (Cosponsored by <i>Wayne State University, Western Michigan University, Michigan Technological University, Hope College, Grand Valley State University, Central Michigan University, Albion College</i>)	Michigan Colleges/Universities Joint Alumni Reception (Albion, CMU, EMU, GVSU, Hope, Michigan Tech, WMU, WSU)	16 Oct.	5:30–7:30 p.m.	Omni William Penn Hotel, Conference B
Franklin & Marshall College	Franklin & Marshall College, Group Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
Friends of the Cephalopods	Friends of the Cephalopods	17 Oct.	8–10 p.m.	The Westin Pittsburgh Hotel, Allegheny III
Friends of the Echinoderms	Friends of the Echinoderms Meeting	17 Oct.	7–9 p.m.	The Westin Pittsburgh Hotel, Butler East
Geosciences Division of Council on Undergraduate Research	CUR Geoscience Division Councilor Meeting	15 Oct.	4–6 p.m.	The Westin Pittsburgh Hotel, Cambria West
IUGS Deep-Time Digital Earth (Cosponsored by <i>Geologic TimeScale Foundation</i>)	Deep-Time Digital Earth (DDE), IUGS Big Science Program Reception	17 Oct.	6:30–8 p.m.	DLCC, Room 323
Keck Geology at Macalester College	Keck Geology Consortium Workshop	15 Oct.	4–5:30 p.m.	David L. Lawrence Convention Center, 331
Macalester College	Keck Geology Consortium Rep Meeting	15 Oct.	6–8:30 p.m.	The Westin Pittsburgh Hotel, Fayette
Maria Farmer	A Tribute to Jack Farmer, Father of Exopaleontology, Face of Astrobiology, Teacher to Thousands Around the World Reception: Session 69: <i>Are We Alone in the Universe? The Science and Strategies to Search for Evidence of Past Life on Earth, in the Solar System, and Beyond</i>	15 Oct.	1:30–5:30 p.m.	DLCC, Room 335
North American Commission on Stratigraphic Nomenclature	North American Commission on Stratigraphic Nomenclature Annual Meeting	16 Oct.	1–5 p.m.	The Westin Pittsburgh Hotel, Fayette
OSU College of Earth, Ocean, and Atmospheric Sciences	Oregon State University Alumni and Friends Reception (CEOAS) Hosted by the College of Earth, Ocean, and Atmospheric Sciences	16 Oct.	5:30–8 p.m.	The Westin Pittsburgh Hotel, Westmoreland East

(continued...)

Alphabetical Listing of Events

DLCC—David L. Lawrence Convention Center

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
Penn State University	Penn State Alumni Reception	16 Oct.	5:30–8:30 p.m.	Omni William Penn Hotel, Oakmont
Rutgers University Department of Earth and Planetary Sciences	Rutgers University Department of Earth and Planetary Sciences Alumni Event	16 Oct.	7–10 p.m.	McCormick & Schmick's
School of Earth and Sustainability, Northern Arizona University	Northern Arizona University Earth and Sustainability Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
Sedimentary Geochemistry and Paleoenvironments Project	Sedimentary Geochemistry and Paleoenvironments Project Social Reception and Planning Meeting	17 Oct.	6:30–8 p.m.	The Westin Pittsburgh Hotel, Washington
Smith College	Smith College Group Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
Stanford University	Stanford Doerr School of Sustainability Alumni Reception	16 Oct.	5:30–7 p.m.	Omni William Penn Hotel, Oliver
StraboSpot (Cosponsored by <i>GSA Structural Geology and Tectonics Division</i>)	StraboSpot Reception: Introducing StraboMicro and StraboSpot2	15 Oct.	6:30–8:30 p.m.	The Westin Pittsburgh Hotel, Washington
Texas Tech University, Department of Geosciences	Texas Tech University Alumni Reception	16 Oct.	6:30–9:30 p.m.	Southern Tier Brewery Pittsburgh
The National Science Foundation	NSF Town Hall: <i>Move Your Research Results to Society and the Economy</i>	16 Oct.	noon–1 p.m.	DLCC, Room 310 / 311
Trinity University	Trinity University Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
University of California–Santa Cruz	Subduction Zones in Four Dimensions (SZ4D) Town Hall	17 Oct.	5:30–6:30 p.m.	The Westin Pittsburgh Hotel, Allegheny II
University of Connecticut, Department of Earth Sciences	University of Connecticut Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
University of Kansas	University of Kansas Alumni Reception	16 Oct.	6–8 p.m.	Omni William Penn Hotel, Conference C
University of Kentucky, Department of Earth & Environmental Sciences	University of Kentucky Department of Earth & Environmental Sciences Alumni Reception	16 Oct.	6–8 p.m.	Omni William Penn Hotel, Vandergrift
University of Michigan	University of Michigan Earth and Environmental Sciences Alumni Reception	16 Oct.	6–8 p.m.	The Westin Pittsburgh Hotel, Somerset West
University of New Mexico (Cosponsored by <i>New Mexico Tech University, New Mexico State University, University of Texas at El Paso</i>)	Rio Grande Universities Alumni Reception	16 Oct.	7–10 p.m.	Omni William Penn Hotel, Conference A
University of North Carolina at Chapel Hill	University of North Carolina at Chapel Hill Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I
University of Tennessee, Knoxville Department of Earth and Planetary Sciences	University of Tennessee, Knoxville Alumni Reception	16 Oct.	7–9 p.m.	Omni William Penn Hotel, Phipps

(continued...)

HOST NAME	EVENT NAME	DATE	TIME	LOCATION
University of Utah, Department of Geology and Geophysics	University of Utah Alumni Reception	16 Oct.	6–8 p.m.	Omni William Penn Hotel, Franklin/Green Room
University of Washington, Department of Earth and Space Sciences	University of Washington Department of Earth and Space Sciences Alumni Reception	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Washington
William & Mary (Cosponsored by <i>James Madison University, Virginia Tech</i>)	Virginia Universities Alumni Reception (William & Mary, James Madison University, Virginia Tech)	16 Oct.	7:30–9 p.m.	Omni William Penn Hotel, Frick
York College of CUNY (Cosponsored by <i>Dhaka University</i>)	Dhaka University (Bangladesh) Geology Graduates Reflecting 50 Years of Geo- bonding	16 Oct.	7–9:30 p.m.	The Westin Pittsburgh Hotel, Allegheny I

Local Organizing Committee



Gale Blackmer
General Co-Chair
Pennsylvania State Geologist



Jessica Moore
General Co-Chair
West Virginia State Geologist



Brett McLaurin
Field Trip Chair
Bloomsburg University



Patrick Burkhardt
Technical Program Chair
Slippery Rock University



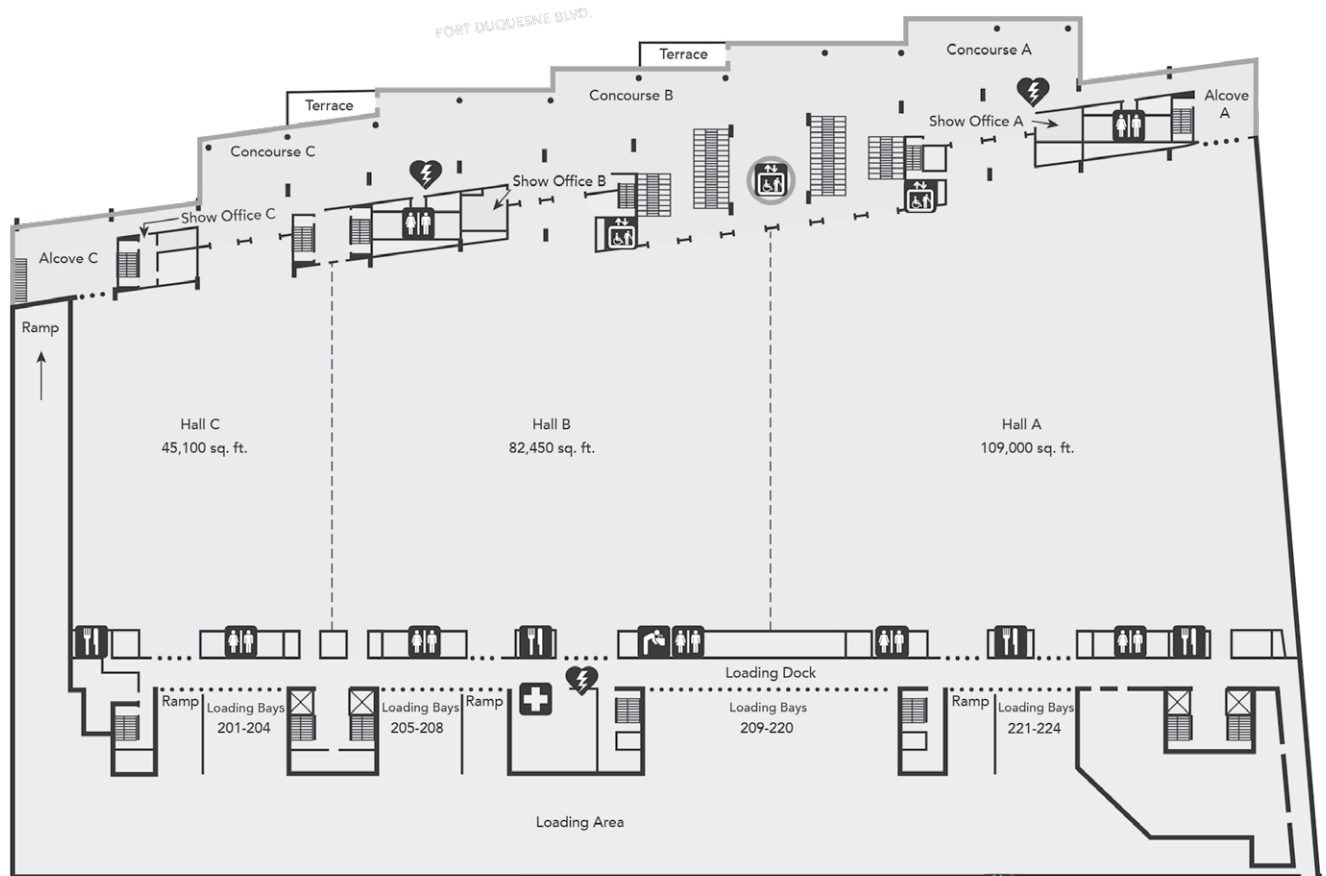
Kevin Mickus
Vice Technical Program Chair
Missouri State University

Endorsement Recognition— Session Co-Endorsing Organizations

AASP - The Palynological Society	GSA Structural Geology and Tectonics Division
American Association of Petroleum Geologists	History of Earth Sciences Society
American Association of State Geologists	International Association for Geoscience Diversity
American Association of Stratigraphic Palynologists	International Association for Promoting Geoethics
American Geophysical Union	International Association of GeoChemistry
American Geosciences Institute	International Association of Hydrogeologists
American Institute of Professional Geologists	International Association of Hydrogeologists
American Quaternary Association	International Environmental & Health Sciences Consortium
Association for Women Geoscientists	International Medical Geology Association
Association of American State Geologists	International Mineralogical Association
Chinese Geological Society	International Society of Groundwater for Sustainable Development
Cushman Foundation	International Union of Geological Sciences Deep-Time Digital Earth
Earth Science Information Partners	International Water Association Specialist Group
EarthScope Consortium	Karst Waters Institute
ExxonMobil	LIFE Research Coordination Network
Geochemical Society	Metals and Related Substances in Drinking Water (METRELS)
Geological Society of America	Mineralogical Society of America
Groundwater Solutions Initiative for Policy and Practice	NASA/Jet Propulsion Laboratory
GSA Continental Scientific Drilling Division	National Association of Geoscience Teachers (NAGT) Geo2YC Division
GSA Energy Geology Division	National Association of Geoscience Teachers (NAGT)
GSA Environmental and Engineering Geology Division	Geoscience Education Research (GER) Division
GSA Environmental and Engineering Geology Division: Landslide Committee	National Association of Geoscience Teachers (NAGT) Teacher Education Division (TED)
GSA Foundation	National Cave and Karst Research Institute
GSA Geoarchaeology Division	National Earth Science Teachers Association
GSA Geobiology and Geomicrobiology Division	Paleontological Research Institution
GSA Geochronology Division	Paleontological Society
GSA Geoinformatics and Data Science Division	Pittsburgh Geological Society
GSA Geology and Health Division	Securing Americas Future Energy (SAFE) Center for Critical Minerals Strategy
GSA Geology and Public Policy Committee	SEPM (Society for Sedimentary Geology)
GSA Geology and Society Division	Sigma Gamma Epsilon
GSA Geophysics and Geodynamics Division	Society of Economic Geologists
GSA Geoscience Education Division	The International Society of Groundwater for Sustainable Development
GSA History and Philosophy of Geology Division	U.S. National Committee for Geodesy and Geophysics
GSA Hydrogeology Division	U.S. National Committee for Geological Sciences
GSA International	U.S. National Committee for Psychological Sciences
GSA Karst Division	U.S. National Committee for Quaternary Research
GSA Limnogeology Division	U.S. National Committee for Soil Sciences
GSA Marine and Coastal Geoscience Division	US Geological Survey - National Cooperative Geologic Mapping Program
GSA Mineralogy, Geochemistry, Petrology, and Volcanology Division	
GSA Planetary Geology Division	
GSA Quaternary Geology and Geomorphology Division	
GSA Sedimentary Geology Division	
GSA Soils and Soil Processes Division	

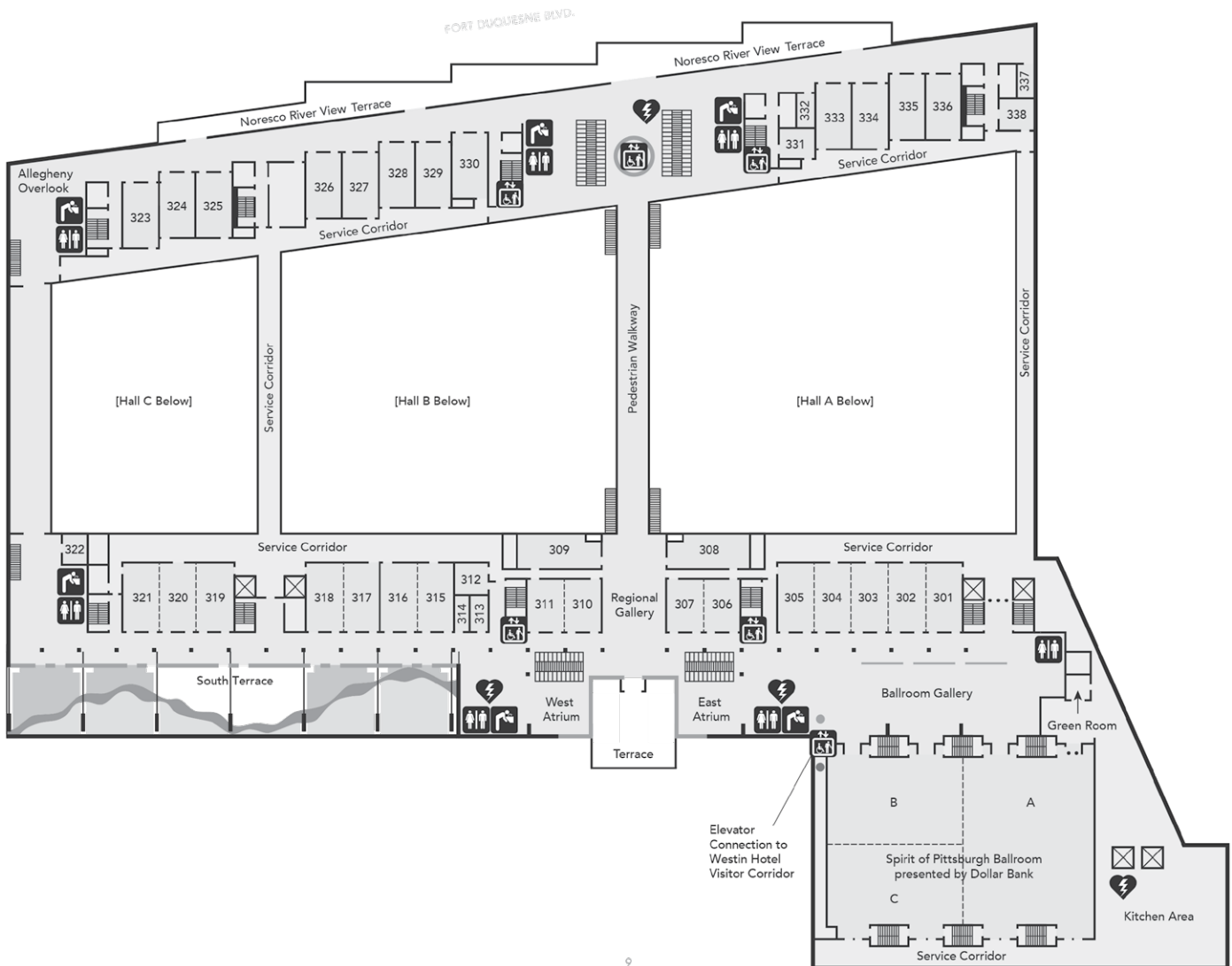
Map of Convention Center

Level 2



Map of Convention Center

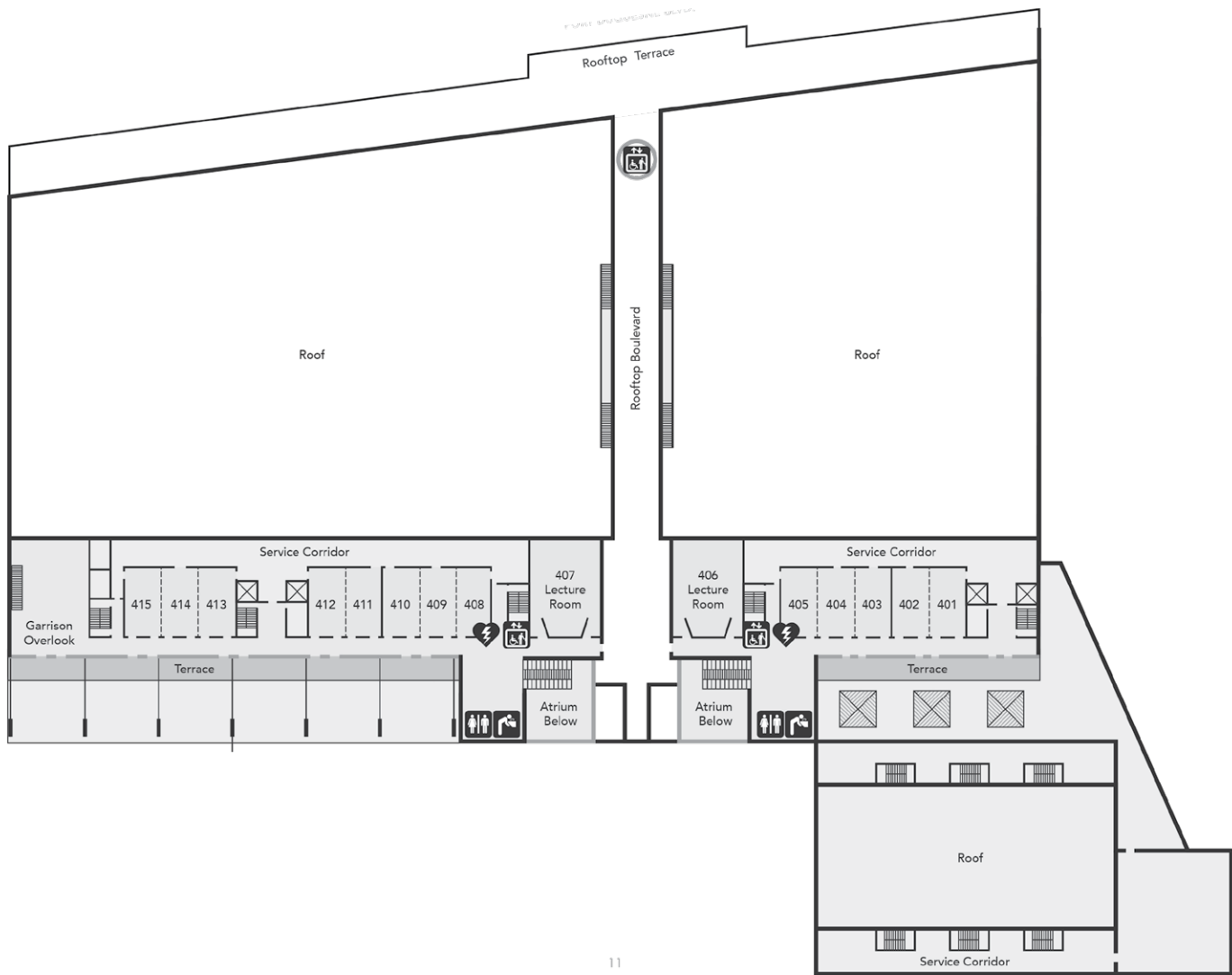
Level 3



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Map of Convention Center

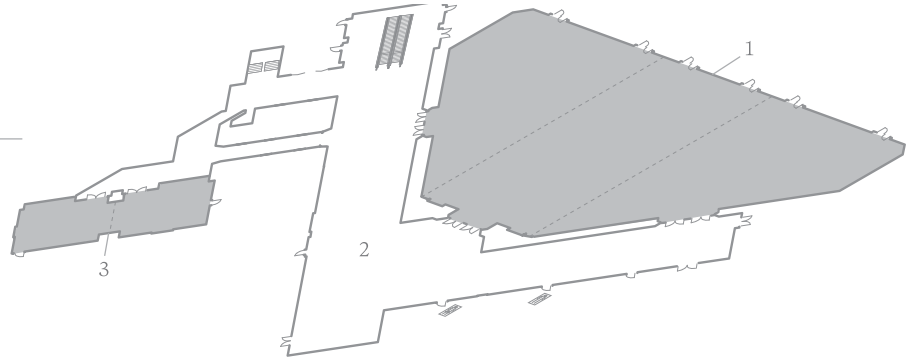
Level 4



Map of The Westin Pittsburgh

THIRD FLOOR

1. ALLEGHENY GRAND BALLROOM
2. ALLEGHENY FOYER
3. CRAWFORD



SECOND FLOOR

1. BUTLER
2. CAMBRIA
3. WESTMORELAND
4. WASHINGTON
5. LAWRENCE
6. ARMSTRONG
7. SOMERSET
8. FAYETTE
9. ROTUNDA
10. PENNSYLVANIA PREFUNCTION
11. PENNSYLVANIA

