



Planetary Sciences

January 2019 Newsletter

Greetings from Your Planetary Sciences Section Leadership!

Your new Planetary Sciences leadership team thanks you for electing us to carry out our roles. We also thank all those who have volunteered for important activities such as judging student presentations during Fall Meeting, organizing sessions, serving on the awards committee, and performing other activities that the section carries out throughout the year.

Please consider [donating to the Austin Endowment for Student Travel](#) and help AGU achieve a \$1 million match. This matching fund was established by an AGU member who remembers the amazing and positive impact that traveling to an AGU Fall Meeting had on him when he was a student himself. This is a great opportunity to help young people in the geosciences from all over the world.

Please feel free to contact us anytime with your ideas and concerns. AGU is a leading science organization in the world, and that is largely thanks to its members.

Rosaly Lopes, President

Michael Mischna, President-elect

David Williams, Secretary

Sam Birch, Early Career Representative

Ashley Schoenfeld, Student Representative

Sarah Stewart, Past President

Upcoming Deadlines & Events

For the latest Planetary Sciences updates and events, visit the section calendar.

NOTE: As the partial shutdown of the U.S. government continues, due dates for many NOI/proposals for NASA's ROSES-2018 program have been switched to "TBD." Some meetings may be delayed. Be sure to check websites for upcoming meetings for the latest information.

- 29–31 January: [Small Bodies Assessment Group \(SBAG\) meeting](#), Houston, TX
- 29 January–1 February: [Mars Extant Life: What's Next?](#) Carlsbad, NM
- 15 February 2019: Abstract deadline, [Ocean Worlds 4 Meeting](#)
- 25–27 February 2019: [Workshop on In Situ Exploration of the Ice Giants](#), Aix-en-Provence, France
- 6–8 March 2019: [Centaur Exploration Workshop](#), Orlando, FL
- 18–22 March 2019: [50th Lunar and Planetary Science Conference](#), The Woodlands, TX
- 7–12 April 2019: [EGU General Assembly](#), Vienna, Austria
- 21–23 May 2019: [Ocean Worlds 4 Meeting](#), Houston, TX

Planetary Sciences Announcements/Updates

Exoclimes V: Preregistration is now open!

Conference fees do not need to be paid as part of preregistration, but anticipated fees are listed on the preregistration page. Some financial aid will be available. An exciting list of keynote speakers has been lined up, and an outline program is now available on [the website](#). We are looking forward to another stimulating and enjoyable Exoclimes, taking place 12–15 August at the University of Oxford in Oxford, U.K. Participants will be selected on the basis of information provided during preregistration. The preregistration deadline is 31 January.

NASA postdoctoral fellowship: Application deadline, 1 March

[The NASA Postdoctoral Program \(NPP\)](#) offers U.S. and international scientists the opportunity to advance their research while contributing to NASA's scientific goals. NPP supports fundamental science, explores the undiscovered, promotes intellectual growth, and encourages scientific connections.

Selected by a competitive peer review process, NPP fellows complete 1- to 3-year fellowship appointments that advance NASA's missions in Earth science, heliophysics, planetary science, astrophysics, space bioscience, aeronautics and engineering, human exploration and space operations, and astrobiology. Applicants must have a Ph.D. or equivalent degree in hand before beginning the fellowship, but may apply while completing the degree requirements. U.S. citizens, lawful permanent residents, and foreign nationals eligible for J-1 status as a research scholar may apply.

Stipends start at \$60,000 per year, with supplements for high-cost-of-living areas and for certain academic specialties. Financial assistance is available for relocation and health insurance, and \$10,000 per year is provided for professional travel.

Current NPP research opportunities in planetary science can be viewed here: [NPP Planetary Science Research Opportunities](#). Applications are accepted three times each year: 1 March, 1 July, and 1 November. Please [email](#) all questions.

Women in Space 2019

[This conference](#) is an expansion of Women in Planetary Science and Exploration 2018 held at the University of Toronto in Canada. Women in Space 2019 will take place 7–9 February at SkySong, the ASU Scottsdale Innovation Center, in Arizona. This event is an opportunity for scientists and engineers to showcase their work in the field of space and planetary science. The event highlights the achievements of women and nonbinary researchers, while offering an opportunity to discuss, challenge, network, and support their peers.

Supporting #WomenInSTEM is the prime goal of this event. We encourage geologists, geophysicists, engineers, geographers, astrobiologists, chemists, physicists, astronomers, social scientists, and any other people of all genders working or researching in a related field to attend and join the discussion.

Forum for New Leaders in Space Science 2019

The National Space Science Center of the Chinese Academy of Sciences and the Space Studies Board of the U.S. National Academies of Sciences, Engineering, and Medicine invite applications to participate in the [9th and 10th Forums for New Leaders in Space Science](#). The Forums, initiated in 2014, are designed to provide opportunities for a highly select group of young (<40 years old) Earth and space scientists to discuss their research activities in an intimate and collegial environment. The 9th and 10th Forums will be devoted to Earth observation from space and planetary science (i.e., studies of the solar system's planets, satellites, and minor bodies) and will be held 15–16 May 2019 in Beijing, China, and 28–29 October 2019 in Washington, D. C. Abstract submission deadline is 31 January.

The Main Belt: A Gateway to the Formation and Early Evolution of the Solar System

[This workshop](#) brings together experts to establish the current understanding of Main Belt asteroid science, as well as to debate future directions for investigation. The workshop stimulates discussions about accretion, chemistry, collisions, dynamics, geophysics, and meteorites. The workshop is limited to approximately 100 attendees and will take place 4–7 June in Sardinia, Italy.

On the Moon Again!

If you have a telescope, [register here](#) and set up your scope on 12–13 July where the public can come and view through your scope!

Catalyzing Opportunities for Research in the Earth Sciences (CORES)

The National Academies is conducting a study on Catalyzing Opportunities for Research in the Earth Sciences (CORES) for the Division of Earth Sciences at the National Science Foundation and wants to hear from you!

The purpose of the CORES study is to (1) identify a concise set of high-priority scientific questions for the next decade, (2) assess infrastructure needed to address these questions, and (3) determine opportunities for greater collaboration with other NSF divisions and directorates, federal agencies, and domestic and international partners.

The CORES committee feels strongly that this study must be informed by vigorous community input from across the entire spectrum of Earth sciences. One of the ways we are soliciting input is through [a questionnaire](#) assessing your ideas about upcoming research priorities. Please contribute your comments regarding the top Earth science priorities for the next decade. [The CORES site](#) provides more detailed information on the study charge, as well as a complete list of committee members. Thank you!

Call for abstracts: Computing the Rise of Life: On and Beyond Earth (Session 65503)

AbSciCon will take place 24–28 June in Bellevue, Wash. Abstract submission deadline: 23 January, 11:59 p.m. ET. Submission guidelines can be found [here](#).

Among the recommendations in the recent National Academy of Sciences (NAS) report on the science strategy for astrobiology is to incorporate more sophisticated methods for the study of biosignatures (novel and/or agnostic). A comprehensive chemical perspective into such a study requires investigation of a wider variety of reactions and processes that can feasibly and safely be performed in the laboratory. This is also the case for origins of life chemistry in which the variety of proposed environments and processes relevant to prebiotic chemistry spans a tremendous parameter space. In these situations, high-fidelity chemical simulations are essential, especially for defining biosignatures or origins of life research that can withstand the scrutiny their conclusions may bring.

With the increasing power of supercomputers and the introduction of advanced chemical theories, simulations at all levels are currently being developed at a rapid pace. The role of simulations is twofold: They provide detailed mechanistic explanations of observations, and they predict phenomena that are difficult, if not impossible, to observe in the laboratory.

[This session](#) seeks papers that offer existing/novel theoretical models or computational works that address the chemical and environmental conditions relevant to astrobiology. This includes computational work related to prebiotic chemistry, the chemistry of early life, the biogeochemistry of

life's interaction with its environment, chemistry associated with biosignatures and their false positives, and chemistry pertinent to conditions that could possibly harbor life (e.g., Titan, Enceladus, Europa, TRAPPIST-1, habitable exoplanets, etc.).

Conveners: Shiblee Barua, Shawn Domagal-Goldman, Der-you Kao, Conor Nixon, Paul Romani (all from NASA Goddard Space Flight Center, Greenbelt Md.)