



## December 2018 Newsletter

### Upcoming Events & Deadlines

For the latest Planetary Sciences updates and events, visit the [section website](#).

- **10-14 December:** [AGU Fall Meeting 2018](#), Washington, DC
- 21 December: Application deadline, [AGU Fall Meeting Program Committee Chair](#)
- 31 December: Abstract deadline, [Workshop on In Situ Exploration of the Ice Giants](#)
- 7 January 2019: Registration and abstract deadline, [Centaur Exploration Workshop](#)
- 8 January 2019: Abstract deadline, [50th Lunar and Planetary Science Conference](#)
- 10 January 2019: Abstract deadline, [EGU General Assembly](#)
- 15 January 2019: Application deadline, [AGU Congressional Science Fellowship](#)
- 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

### Workshop on In Situ Exploration of the Ice Giants

We are pleased to announce a workshop to address scientific and technological topics relevant to the entry probe exploration of ice giant atmospheres, including scientific questions, how to achieve them, and technological challenges. In the spirit of the Cassini–Huygens mission legacy, the workshop will also focus on potential mission concepts and international cooperation, with an emphasis on probe studies of the ice giants in the framework of future NASA/ESA collaborations. The [Workshop on In Situ Exploration of the Ice Giants](#) will take place at [Laboratoire d'Astrophysique de Marseille, Marseille, France](#) in a 3-day science program comprising themed sessions and featuring a mixture of invited reviews, invited and contributed talks, and posters. The workshop will cover topics ranging from the link between the formation conditions of the ice giant planets and atmospheric composition, measurement techniques, instrumentation and technologies, and mission concepts. Invited speakers will include international experts on the origin, formation, and evolution of giant planets, giant planet atmospheres, instrumentation for in situ measurements of atmospheres, entry and descent probes and their technologies, future technology needs and development, and what the ice giants can tell us about exoplanetary systems. Abstract submissions for posters and talks are encouraged, although the number of talks available is limited in order to keep the workshop to 3 days. All contributions should be related to science, measurements, or technologies for in situ exploration of the ice giants. *Please register early, as space is limited to no more than 90 participants!* The possibility of publishing workshop papers in a peer-reviewed journal is being explored. A final announcement with additional details regarding online payment of registration, a schedule, and other logistical information was released in October–November 2018. Workshop contacts are [Olivier Mousis](#) and [David Atkinson](#) and the Program Organizing Committee members are:

- Olivier Mousis, Aix Marseille Université, France
- David Atkinson, Jet Propulsion Laboratory, Caltech, USA
- Sushil Atreya, University of Michigan, USA
- Athena Coustenis, Observatoire de Paris, France
- Francesca Ferri, CISAS di Padova, Italy
- Leigh Fletcher, University of Leicester, U.K.
- Mark Hofstadter, Jet Propulsion Laboratory, Caltech, USA
- Jean-Pierre Lebreton, Université d'Orléans, France
- Jonathan Lunine, Cornell University, USA
- Kim Reh, Jet Propulsion Laboratory, Caltech, USA
- Amy Simon, NASA Goddard Space Flight Center, USA

- Thomas Spilker, Independent Consultant, USA
- Ethiraj Venkatapathy, NASA Ames Research Center, USA
- Olivier Witasse, ESA European Space Research and Technology Center, Netherlands
- Peter Wurz, University of Bern, Switzerland

### **Timescales and Rates of Earth and Planetary Processes**

The [Department of Geological Sciences at the University of Florida](#) invites applications for a tenure-track Assistant Professor position with an anticipated start date of 16 August 2019. The search committees will begin reviewing applications on 31 October 2018, and the position will remain open until filled. For complete information about this and other positions, including required qualifications and applications materials, please [view the job postings](#). The department is interested in candidates with the ability to quantify Earth or planetary processes at short and/or long timescales. Applicants using quantitative calibrations of time including, but not limited to, geochronology/thermochronology, stratigraphy (magneto-, isotope, chemo-, cyclo-, or bio-), or modern observation systems, are encouraged to apply. Inquiries may be directed to the Search Committee chair, [Dr. Andrea Dutton](#). The Department of Geological Sciences resides in the College of Liberal Arts and Sciences and includes faculty with a wide range of expertise in solid Earth and planetary processes, surface processes, paleoclimate, marine geology, and paleontology. Resources include a range of modern analytical instruments including MC-ICP-MS, TIMS, noble gas and stable isotope mass spectrometers, SEM, EPMA, XRD, XRF, core analysis, magnetometers, GPS, and seismometers. Researchers also have access to the HiPerGator 2 high-performance computing cluster.

### **Amazonian Mars: Climate and Processes**

The Planetary and Space Science journal has approved a special issue on "[Amazonian Mars: Climate and Processes](#)," with submissions accepted from 1 November 2018 to 28 February 2019. Papers that describe the climate history as well as geological and environmental processes that pertain to the Amazonian period of Mars's history, which includes the present day, are solicited. The Amazonian period encompasses the most recent 3 billion years of Mars's history, which has strongly shaped the evolution of the surface that we observe today. This special issue was prompted by the recent Mars Workshop on Amazonian and Present-Day Climate; submissions are welcome from the community, and the lead guest editor is John Moores (New York University).

### **Call for Papers: Icarus Special Issue on Current and Recent Landscape Evolution on Mars**

The temporal and geographical distribution of liquid water on early Mars is thought to have been much more ubiquitous and long-standing than it is today, as current boundary conditions exhibit extreme aridity, generally low atmospheric pressure, and mean temperatures largely below the freezing point of water. On the other hand, relatively recent if not current revisions of the Martian

surface by (1) possibly wet flows, (2) the ephemeral but iterative presence of RSLs, and (3) glacial and periglacial-like processes, suggest that liquid water may be playing a much more dynamically enigmatic role in the Late Amazonian epoch than had been thought hitherto. On the other hand, some workers have suggested that CO<sub>2</sub>, or other water-unrelated processes, are the only plausible agents of landscape change under current or relatively recent conditions. Articles that address this debate or that focus on related questions or issues [would be welcomed](#).

## **Research Opportunities for Graduate Students**

Since 2007, the NASA Science Mission Directorate's (SMD) four science divisions (Earth Science, Heliophysics, Planetary Science, and Astrophysics) at NASA Headquarters in Washington, D. C., have supported graduate student-initiated research through the NASA Earth and Space Science Fellowships (NESSF). This year, however, the Science Mission Directorate is inviting proposals for graduate student research via a new solicitation entitled "[Future Investigators in NASA Earth and Space Science and Technology](#)" (FINESST), NNH19ZDA005K. The FINESST solicitation replaces the 2019 call for new NASA Earth and Space Science Fellowships. No currently funded NESSF awards will be impacted by the transition to the new solicitation, and universities should continue to request funding on behalf of existing NESSF grants via the [NESSF19R solicitation](#). The FINESST solicitation and awards will have the following properties, consistent with normal grants under 2 CFR 200:

1. Project proposals may request up to a 3-year period of performance (POP). POP changes, including no-cost extensions, will follow normal NASA grant procedures
2. Continuation of FINESST awards beyond the first year will require the submission of a progress report via NSPIRES rather than the submission of a "renewal proposal," as was required by NESSF
3. FINESST proposal costs will be limited to those allowable under 2 CFR 200.75. Participant support costs (e.g., stipends) and, in general, NASA do not permit indirect costs to be requested or recovered on participant support costs

In sum, the participating graduate student will be a "Future Investigator" (FI), not a "Fellow." The change to FINESST should clarify to principal investigators (also known as faculty advisors), graduate students, and institutions that these grants are for student-designed research projects that contribute to SMD's science, technology, and exploration goals. As with other SMD proposals, FINESST proposals will be reviewed for (1) intrinsic merit and (2) relevance to NASA. In the future, rather than continue FINESST as a separate funding announcement, SMD expects to add this graduate opportunity as a cross-divisional appendix to SMD's omnibus research solicitation, "Research Opportunities in Space and Earth Science" (ROSES).

It is anticipated that this change will start with ROSES-2020. FINESST proposals are due by 11:59 p.m. eastern time on 1 February 2019. NESSF19R proposals are due by 11:59 p.m. eastern time on 15 March 2019. Send questions by [email](#). FINESST questions and responses, with identifying information removed, will be posted on the NSPIRES page for [FINESST-2019](#). Any NESSF19R

questions and responses, with identifying information removed, will be posted on the NSPIRES page for [NESSF19R](#).

### **NASA Seeking Volunteer Reviewers in Earth and Space Science**

NASA's Science Mission Directorate (SMD) is seeking subject matter experts to serve as mail-in and/or panel reviewers of proposals to ROSES and other SMD solicitations. Just follow the links below to the volunteer review forms, and click the boxes to indicate the topics in which you consider yourself to be a subject matter expert. If your skills match our needs for that review, we will contact you to discuss scheduling. We are [currently seeking reviewers](#) for:

- [Future Investigators in NASA Earth Science and Technology \(FINESST Earth\)](#). This is the new solicitation for grad student research.
- [Future Investigators in Space Science and Technology \(FINESST Space\)](#). This is the new solicitation for grad student research.
- [Lunar Surface Instrument and Technology Payloads \(ROSES C.28\)](#)
- [Solar System Exploration Research Virtual Institute Cooperative Agreement Notice \(SSERVI CAN-3\)](#)
- [Rosetta Data Analysis Program \(C.20 of ROSES\)](#)
- [Discovery Data Analysis \(ROSES C.11\)](#)
- [Mars Data Analysis Program \(ROSES C.9\)](#)
- [Planetary Instrument Concepts for the Advancement of Solar System Observations \(PICASSO\)](#)

### **AGU Announcements**

#### **Apply to Be the 2020–2022 Fall Meeting Program Committee Chair**

The AGU Meetings Committee seeks an individual to fill the position of chair of the Fall Meeting Program Committee. Fall Meeting is the premier meeting of the Earth and space sciences community. Candidates must be AGU members, be highly organized and dynamic, and have strong leadership abilities. The Fall Meeting Program Committee chair also serves as an ex officio member of the AGU Meetings Committee. The time commitment is approximately 10%–15% of one's time, depending on management style. The chair receives an annual honorarium of \$3,000, and expenses are paid to attend relevant meetings. This position will chair the 2020, 2021, and 2022 AGU Fall Meetings but will shadow the current Fall Meeting Program Committee chair throughout the 2019 Fall Meeting planning process. The chair will:

- Preside over the Union-appointed Program Committee

- Ensure that excellent scientific sessions and keynotes are produced for the Union program
- Provide guidance to section committee members to develop programs and to ensure the development of both disciplinary and interdisciplinary sessions
- Implement existing and new scientific program initiatives and guide the final arrangement of the scientific program
- Attend two face-to-face committee meetings in the spring and fall of each year
- Participate in conference calls as needed

Please review the [full chair description](#) for additional responsibilities. For additional information or to be considered for this position, please send a curriculum vitae with a letter of interest outlining how your skills set, knowledge, and abilities are appropriate for the chair position to [meetingsdirector@agu.org](mailto:meetingsdirector@agu.org). The application deadline is **Friday, 21 December 2018**. Applications will be reviewed by a selection committee, and notification of selection will be in February 2019. This is an opportunity to advance your leadership skills and to participate in the organization and development of an exciting and innovative scientific program for the AGU Fall Meeting.

### **Centennial Events at Fall Meeting**

This year's meeting serves as the launch of [AGU's Centennial](#), with special events, sessions, and engagement opportunities for all attendees. Reflect on the scientific progress of the past century and glimpse what challenges and breakthroughs the next 100 years will bring. More information about the exciting events and opportunities can be found at the [Fall Meeting](#) website.

### **New for 2018**

For the first time, our global Earth and space science community will gather in Washington, D.C., for Fall Meeting. As always, we will highlight and celebrate the latest scientific discoveries, insights, and advances in the many fields of research that AGU encompasses. This year's location also provides a special opportunity—to stand together to show the world that scientific collaboration is international, interdisciplinary, and indispensable—and to demonstrate the value of our science to policy makers, thought leaders, and the public. Come see all that is new about AGU and the Fall Meeting at the [Fall Meeting](#) website!

### **AGU Events App for Fall Meeting 2018**

The app is your resource to navigate the Fall Meeting program from your mobile device and is now available [for the iPhone](#) and for [Android](#).

## **FYIs**

### **Get Social with Planetary Sciences!**

Looking for even more Planetary Sciences happenings? Our section website is packed with updates, employment opportunities, key contacts, and section specific announcements. Be sure to also follow us on Facebook and Twitter for the latest PS activities.

### **Publish Your Notice in the AGU Planetary Sciences Newsletter**

The AGU Planetary Sciences section has more than 6,500 scientist members worldwide. Your announcements and notices in the Planetary Sciences newsletter will reach a wide range of professionals and students in precisely the areas in which you should advertise. If you have any job postings, conference announcements, or other planetary-related material, please send it to [David Williams](#) to be included in a future newsletter.