

September 2022 Newsletter

Greetings from Your Planetary Sciences Section Leadership!

Happy September everyone! Check out the many conferences and workshops that are upcoming. Like last year, we are working to support several new initiatives for our section. For the Fall Meeting, we are trying to facilitate wider participation among our members, so if you need assistance with AGU registration or caregiver assistance to attend the AGU Fall Meeting please see the linked forms. We are continuing to accept applications for the various volunteer opportunities for our section and are looking for people interested in participating in a section mentoring program. As always, if you are interested in advertising in our newsletter, please reach out to [Jennifer Whitten](#).

Michael Mischna, President

Paul Byrne, President-Elect

Jennifer Whitten, Secretary

Emma Dahl, Early Career representative

An Li, Student representative

Rosaly Lopes, Past President

Upcoming Deadlines & Events

Upcoming Deadlines

- ROSES-2021: Rolling Submissions
 - [Several program will transition to No \(Fixed\) Due Dates \(NoDD\):](#)
 - Emerging Worlds (EW)
 - Solar System Workings (SSW)
 - Planetary Data Archiving, Restoration, and Tools (PDART)

- Exobiology (ExoBio)
- Solar System Observations (SSO)
- Planetary Instrument Concepts for the Advancement of Solar System Observations (PICASSO)
- Laboratory Analysis of Returned Samples (LARS)

Upcoming Conferences

- **11-15 September 2022:** 2nd International Conference on High-Speed Vehicle Science and Technology (HiSST), Bruges, Belgium
- **12-14 September 2022:** (Exo)Planet Diversity, Formation and Evolution, Berlin, Germany/Virtual
- **12-16 September 2022:** Planet and Binary Formation in Gravitationally Unstable Protoplanetary Discs in the High-Resolution Era, Leicester,/Virtual
- **18-22 September 2022:** 73rd International Astronautical Congress, Paris, FranceSeptember 18-22, 2022: Hypervelocity Impact Symposium 2022 Alexandria, Virginia
- **18-23 September 2022:** Europlanet Science Congress, Granada, Spain
- **19-23 September 2022:** Distributed Volcanism and Distributed Volcanic Hazards, Flagstaff, Arizona
- **22-24 September 2022:** Maria Mitchell Association Women of Science Symposium, Babson Park, Massachusetts
- **26-28 September 2022:** Ninth International Workshop on Planetary, Solar and Heliospheric Radio Emissions, Dublin, Ireland/Virtual
- **27-30 September 2022:** Open Source Science Data Repository Workshop, Hampton, Virginia/Virtual

Planetary Sciences Announcements/Updates

#1) PLANETARY IMPACTS COMMUNITY WIKI PROJECT

The purpose of this project is to promote collaborations and sharing of research and educational materials in the topics related to planetary impact processes. We hope that the connections nurtured through this project can enable community development and international connections.

[Impacts. Wiki](#) includes an opt-in Community Directory to help students and researchers find scientists with specific expertise. You can support this project by contributing materials, becoming an editor or advertising the site. The site will advertise new materials by an opt-in Newsletter and social media.

We plan to organize community meetings at upcoming conferences to discuss the needs of the planetary impacts community and potential community development projects.

Founding editors: Sarah Stewart, Terik Daly, Chris Cline, Angela Stickle, Phil Carter

#2) VOLUNTEERING WITH THE AGU PLANETARY SCIENCES SECTION

We are continuing to look for people interested in getting involved with the AGU Planetary Sciences Section. The available opportunities are described in detail below. Please [fill out this form](#) if you are interested in volunteering for any of these positions.

OSPA Coordinators—Responsible for overseeing the Outstanding Student Presentation Award for the section. Identifying/confirming judges, interacting with session liaisons, reviewing judging scoresheets and making the OSPA selections. Time commitment: August-November: ~10 hours; December: ~20 hours (incl. Fall Meeting); January: ~5 hours

Honors Canvassing Committee—Reaching out to colleagues, department heads, managers, etc. to encourage submission of applications for the Fred Whipple Award and Ronald Greeley Early Career Award. Identify worthy candidates, and secure commitments for nominations packages to be submitted on their behalf. Time commitment: December-March: ~20 hours

Honors Selection Committee—Review applications for Whipple and Greeley awards and make selection of award winners. Time commitment: March-June: ~20 hours

Student Travel Grant Committee—Review planetary science applications for Student Travel Grant program and make selections of awardees. Time commitment: June-September: ~5 hours

Caregiver Award Committee—Review applications for caregiver awards (child or dependent care); work with executive committee to establish number and amount of awards based on need. Time commitment: June-October: ~10 hours

Feel free to contact any of the PSS Officers for more details.

#3) PLANETARY SCIENCE SECTION MENTORSHIP PROGRAM

[Sign up for the new Planetary Science section mentorship program during AGU Fall Meeting!](#)

The AGU Planetary Science section is launching a new mentorship program to match students and early career scientists with more experienced scientists going to Fall Meeting. Our goal is to help new planetary science students and early career scientists learn how to best navigate Fall Meeting. First-time attendees of AGU Fall Meeting will be prioritized as mentees, and the form will be open until all openings are filled. Mentees and mentors will meet each other and grab a free lunch on Monday, 12/12 from 12:45-1:45pm. **Interested mentors and mentees, please sign up here:** <https://forms.gle/NovgR4vzMMjiboUi8>.

#4) STUDENT AND EARLY CAREERS EARTH AND PLANETARY INTERIORS TRIVIA NIGHT

If you are a student or early career scientist in planetary science, consider getting a ticket for the Earth and Planetary Interiors trivia night at AGU Fall Meeting!

The event will be on Monday, December 12 from 6:30-8:00 pm. Tickets are \$10/student and \$20/early career scientist. Hors d'oeuvres and drinks are included, and there will be prizes! It's a great way to meet people in your section and related fields, so we hope to see you in Chicago in December.

#5) AGU JOURNAL OF GEOPHYSICAL RESEARCH: PLANETS PUBLICATIONS, AUGUST 2022 ISSUE

Journal of Geophysical Research: Planets, Volume 127, Issue 8 <https://agupubs.onlinelibrary.wiley.com/toc/21699100/2022/127/8>

Articles starting with (OA) are published with open access

1. Improved Modeling of Mars' HDO Cycle Using a Mars' Global Climate Model, by M. Vals et al. <https://doi.org/10.1029/2022JE007192>
2. The HDO Cycle on Mars: Comparison of ACS Observations With GCM Simulations, by L. Rossi et al., <https://doi.org/10.1029/2022JE007201>
3. The Aeolian Environment in Glen Torridon, Gale Crater, Mars, by R. Sullivan et al., <https://doi.org/10.1029/2021JE007174>
4. (OA) Variability of Hydration Across the Southern Hemisphere of the Moon as Observed by Deep Impact, by K. L. Laferriere, J. M. Sunshine, L. M. Feaga <https://doi.org/10.1029/2022JE007361>
5. (OA) Seismic Reflection Data Reveal the 3D Subsurface Structure of Pit Craters, by C. Magee et al., <https://doi.org/10.1029/2021JE007155>
6. (OA) Observations of Atmospheric Tides in the Middle and Upper Atmosphere of Mars From MAVEN and MRO, by A. Kumar et al., <https://doi.org/10.1029/2022JE007290>

7. (OA) Stability of the Jupiter Southern Polar Vortices Inspected Through Vorticity Using Juno/JIRAM Data, by P. Scarica et al., <https://doi.org/10.1029/2021JE007159>
8. Detection of Organic Carbon in Mars-Analog Paleosols With Thermal and Evolved Gas Analysis, by A.P. Broz et al., <https://doi.org/10.1029/2022JE007340>
9. Cratering Experiments on Granular Targets With a Variety of Particle Sizes: Implications for Craters on Rubble-Pile Asteroids, by M. Yasui et al., <https://doi.org/10.1029/2021JE007172>
10. (OA) Melt Production and Ejection From Lunar Intermediate-Sized Impact Craters: Where Is the Molten Material Deposited?, by T. Liu et al., <https://doi.org/10.1029/2022JE007264>
11. Thermophysical and Compositional Properties of Paleobedforms on Mars, by A.R. Weintraub et al., <https://doi.org/10.1029/2022JE007345>
12. (OA) Mars Surface Pressure Oscillations as Precursors of Large Dust Storms Reaching Gale, by S. Zurita-Zurita et al., <https://doi.org/10.1029/2021JE007005>
13. (OA) Spectral Diversity of Rocks and Soils in Mastcam Observations Along the Curiosity Rover's Traverse in Gale Crater, Mars, by M.S. Rice et al., <https://doi.org/10.1029/2021JE007134>
14. Sedimentological and Geochemical Perspectives on a Marginal Lake Environment Recorded in the Hartmann's Valley and Karasburg Members of the Murray Formation, Gale Crater, Mars, by S. Gwizd et al., <https://doi.org/10.1029/2022JE007280>
15. (OA) A Revision of the Formation Conditions of the Vredefort Crater, by N.H. Allen et al., <https://doi.org/10.1029/2022JE007186>
16. (OA) Alcoves as Havens From a Harsh Martian Environment, by R. A. De Hon, <https://doi.org/10.1029/2021JE007022>
17. Lunar Pit Morphology: Implications for Exploration, by R. V. Wagner, M. S. Robinson, <https://doi.org/10.1029/2022JE007328>
18. (OA) Synthesis and Stability of an Eight-Coordinated Fe₃O₄ High-Pressure Phase: Implications for the Mantle Structure of Super-Earths, by C. C. Zurkowski et al., <https://doi.org/10.1029/2022JE007344>
19. Three-Dimensional Configuration of Induced Magnetic Fields Around Mars, by C. Zhang et al., <https://doi.org/10.1029/2022JE007334>
20. Thicknesses of Mare Basalts in the Chang'E-5 Landing Region: Implications for the Late-Stage Volcanism on the Moon, by J. Du et al., <https://doi.org/10.1029/2022JE007314>
21. A Micro Mid-Infrared Spectroscopic Study of Chang'e-5 Sample, by Y. Yang et al., <https://doi.org/10.1029/2022JE007453>
22. New View of the Lunar Silicic Volcanism in the Mons Hansteen: Formation and Origins, by D. Qiu et al., <https://doi.org/10.1029/2022JE007289>
23. (OA) Isotopically Heavy Micrometeorites—Fragments of CY Chondrite or a New Hydrous Parent Body?, by M.D. Suttle et al., <https://doi.org/10.1029/2021JE007154>
24. A Nonlinear Numerical Model for Comparative Study of Acoustic-Gravity Wave Propagation in Planetary Atmospheres: Application to Earth and Mars, by S. Srivastava, A. Chandran, E.M.B. Thiemann, <https://doi.org/10.1029/2021JE007156>
25. (OA) Effect of Impact Velocity and Angle on Deformational Heating and Postimpact Temperature, by S. Wakita et al., <https://doi.org/10.1029/2022JE007266>