

June 2022 Newsletter

Greetings from Your Planetary Sciences Section Leadership!

Another short, but sweet newsletter. If you have any ideas for areas that you would like to see the Planetary Sciences Section involved in, please reach out and let us know. We look forward to hearing from you. Also, 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

- **6-15 June 2022:** Mars Studies Program, Tucson, AZ
- **7-9 June 2022:** 27th Meeting of the NASA Small Bodies Assessment Group, Washington DC/Virtual
- **7-9 June 2022:** Unique Science from the Moon in the Artemis Era Workshop, NASA Kennedy Space Center, FL/Virtual
- **7-10 June 2022:** Mercury: Current and Future Science of the Innermost Planet, Orléans, France
- **7-10 June 2022:** Space Resources Roundtable, Golden, CO
- **7 June-1 July 2022:** Planet Formation: From dust coagulation to final orbit assembly, Garching, Germany
- **12-17 June 2022:** 19th International Conference on Ground Penetrating Radar, Golden, CO
- **13-17 June 2022:** Meteoroids 2022, Virtual
- **14-15 June 2022:** Outer Planets Assessment Group Meeting, Washington DC/Virtual
- **14-17 June 2022:** 7th Mars Atmosphere Modelling and Observations Workshop, Paris, France
- **16 June 2022:** Lunar Surface Science Workshop – Virtual Session 16: Assessing the value of modern field geology tools for Artemis, Virtual
- **21-23 June 2022:** Planetary Science Informatics and Data Analytics Conference 2022, Villanueva de la Cañada, Spain
- **22-23 June 2022:** Annual Meeting of Planetary Geologic Mappers, Flagstaff, AZ/Virtual
- **27 June 2022:** Lunar Surface Science Workshop – Virtual Session 17: Defining a coordinated lunar resource evaluation campaign, Virtual
- **27 June-1 July 2022:** European Astronomical Society Annual Meeting, Valencia, Spain
- **28 June-1 July 2022:** Optimizing Planetary In Situ Surface-Atmosphere Interaction Investigations, Boise, ID/Virtual
- **28 June-3 July 2022:** International Congress Festival – International Center for Research and Restitution on the Impact and on Rochechouart, Rochechouart, France

Planetary Sciences Announcements/Updates

#1) AGU Journal of Geophysical Research: Planets Publications, March 2022 Issue

[Journal of Geophysical Research: Planets, Volume 127, Issue 4](#). Articles starting with (OA) are published with open access:

1. (OA) Space Weathering Effects in Troilite by Simulated Solar-Wind Hydrogen and Helium Ion Irradiation, by J. M. Christoph et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE006916>
2. (OA) InSight Pressure Data Recalibration, and Its Application to the Study of Long-Term Pressure Changes on Mars, by L. Lange, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007190>
3. X-Ray Amorphous Sulfur-Bearing Phases in Sedimentary Rocks of Gale Crater, Mars, by R. J. Smith, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007128>
4. (OA) Water Vapor on Mars: A Refined Climatology and Constraints on the Near-Surface Concentration Enabled by Synergistic Retrievals, by E. W. Knutsen, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007252>
5. (OA) InSight Constraints on the Global Character of the Martian Crust, by M. A. Wieczorek, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007298>
6. (OA) High Resolution Map of Water in the Martian Regolith Observed by FRENDE Neutron Telescope Onboard ExoMars TGO, by A. V. Malakhov et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007258>
7. (OA) Fluvial Depositional Systems of the African Humid Period: An Analog for an Early, Wet Mars in the Eastern Sahara, by A. S. Zaki, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007087>
8. (OA) Vertical Aerosol Distribution and Mesospheric Clouds From ExoMars UVIS, by P. M. Streeter, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007065>
9. Evolution of Jupiter-Style Critical Latitudes: Initial Laboratory Altimetry Results, by Y. D. Afanasyev, T. E. Dowling <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007048>
10. (OA) Reappraising the Production and Transfer of Hydrogen Atoms From the Middle to the Upper Atmosphere of Mars at Times of Elevated Water Vapor, by F. Montmessin et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007217>
11. (OA) The Tides of Enceladus' Porous Core, by M. Rovira-Navarro et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007117>
12. (OA) Differential Rotation in Jupiter's Interior Revealed by Simultaneous Inversion for the Magnetic Field and Zonal Flux Velocity, by J. Bloxham et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007138>
13. (OA) Experimental Crystallization of the Lunar Magma Ocean, Initial Selenotherm and Density Stratification, and Implications for Crust Formation, Overturn and the Bulk Silicate Moon Composition, by M. W. Schmidt, G. Kraetli <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007187>

14. (OA) A Morphometric Investigation of Large-Scale Crustal Shortening on Mars, by R. M. Atkins, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007110>
15. (OA) CRISM-Based High Spatial Resolution Thermal Inertia Mapping Along Curiosity's Traverses in Gale Crater, by J. R. Christian, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007076>
16. (OA) Nano-FTIR Investigation of the CM Chondrite Allan Hills 83100, by J. M. Young, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007166>
17. The Moon in the Microwave: Shedding New Light on the Lunar Farside, by R. Bugiolacchi, G.-P. Hu, Y. C. Zheng <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007039>
18. (OA) Energy Exchanges in Saturn's Polar Regions From Cassini Observations: Eddy-Zonal Flow Interactions, by P. L. Read, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE006973>
19. (OA) The Effects of Terrain Properties Upon the Small Crater Population Distribution at Giordano Bruno: Implications for Lunar Chronology, by J.-P. Williams, et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007131>
20. Multiple Mantle Sources of High-Magnesium Terranes on Mercury, by Y. Wang, Z. Xiao, R. Xu <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007218>
21. (OA) Martian CO₂ Ice Observation at High Spectral Resolution With ExoMars/TGO NOMAD, by F. Oliva et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007083>
22. (Free Access) In Recognition of Our 2021 Peer Reviewers, by L. G. J. Montési et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JE007347>
23. The High-Frequency Tidal Response of Ocean Worlds: Application to Europa and Ganymede, by H. C. F. C. Hay, I. Matsuyama, R. T. Pappalardo <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007064>
24. Analysis of Venusian Wrinkle Ridge Morphometry Using Stereo-Derived Topography: A Case Study From Southern Eistla Regio, by E. M. Bethell, R. E. Ernst, C. Samson <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE006879>
25. (OA) Ultraviolet Photooxidation of Smectite-Bound Fe(II) and Implications for the Origin of Martian Nontronites, by V. B. Rivera Banuchi et al. <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE007150>
26. Sub-Volcanic Structure Beneath Marius Hills, Moon, Inferred From Vent Distribution, by E., Cañón-Tapia, R. A. Jacobo Bojorquez <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021JE006960>