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### Making Waves with NOW

- This month's new releases: Noah Randolph-Flagg, [Phosphate Availability for Life on Ocean Worlds](#)
- Call for future [NOW Waves](#), please submit slide (pptx, jpg, pdf) to: [kpietro@whoi.edu](mailto:kpietro@whoi.edu)

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### Upcoming NOW Events

- [NOW Retreat](#) August 19-24 Wrigley Marine Science Institute, Catalina Island
  - Participant application now available (contact [NOW](#) for more details & a link to the application)
- [Quarterly Lecture Series](#) S3 E4 Exploring Ocean Worlds Through Analogs: Combined approaches to clathrates
  - June 5<sup>th</sup> 3pm ET/12pm PT
  - [Angela Marusiak-Schools](#), NASA JPL & [Elodie Gloesener](#), NASA JPL

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### Other Meetings, Workshops and Activities

- May 11 & 25 [NASA Planetary Science Summer School in Mission Design](#)
- May 15-18 [Brines Across the Solar System: Ancient and Future Brines](#)
- May 15-19 [Chapman Conference on Hydrothermal Circulation and Seawater](#) Circulation
- May 18-22 [AbGradCon Proposal Writing Retreat](#)
- May 22-25 [Ab GradCon](#)
- June 13-15 [Titan Through Time](#) (late registration until 6/1/2023)
- June 26-20 [Moons of the Solar System Summer School](#)
- July 9-14 [Goldschmidt 2023 session](#): "Biosignature Diversity, Preservation, and Detection through Geologic Time"
- July 10-14 [International Summer School in Astrobiology](#)
- July 25-27 [Uranus Flagship 2023](#)
- July 25-27 [CRYO2023 Society for Cryobiology](#)
- July 30-Aug 4 [AOGS 2023](#) including [PS09: Geology, Geophysics, and Habitability in Our Solar System](#)
- August TBD [Astrobiology Mission Ideation Factory: Indication of Interest](#)
- September 6-8 Scientific Ocean Drilling- NASA synergies workshop
- October 24-26 [Origins and Habitability of the Galilean Moons](#)
- February 18-23, 2024 [Ocean Science Meeting](#) (session proposals due 5/24/2023)
  - [Sign-up to submit a proposal](#) with NOW colleagues

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### Recent Publications Relevant to Ocean Worlds

- [Buffo, J.J., et al. 2023](#). Geometry of Freezing Impacts Ice Composition: Implications for Icy Satellites, JGR Planets, Volume 128, Issue 3, e2022JE007389, <https://doi.org/10.1029/2022JE007389>
- [Castillo-Rogez, et al. 2023](#). Compositions and Interior Structures of the Large Moons of Uranus and Implications for Future Spacecraft Observations, Volume 128, Issue 1, <https://doi.org/10.1029/2022JE007432>
- [Howells et al., 2023](#). An examination of protist diversity in serpentinization-hosted ecosystems of the Samail Ophiolite of Oman. Front. Microbiol., 04 May 2023. Sec Microbiological Chemistry and Geomicrobiology. Volume 14-2023. <https://doi.org/10.3389/fmicb.2023.1139333>
- [Pankine, A.A., 2023](#). Numerical simulations of heat exchange and vapor flow in ice fractures on Enceladus, Icarus, Volume 401, 2023, 115584, ISSN 0019-1035, <https://doi.org/10.1016/j.icarus.2023.115584>.
- [Randolph-Flagg, N.G., et al. 2023](#). Phosphate availability and implications for life on ocean worlds. *Nat Commun* 14, 2388 (2023). <https://doi.org/10.1038/s41467-023-37770-9>

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### New Job Postings

- [Life Detection Scientist](#), NASA GSFC (5/16/2023)
- [Mars Sample Receiving Project Measurement Definition Team](#) – Indication of Interest (5/31/2023)
- *Previously advertised posts archived [HERE](#)*

## Proposal Calls

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- [NASA Research Initiation Awards Program \(5/18/2023\)](#)
- [NASA Dragonfly Student and Early Career Investigator Program \(6/16/2023\)](#)
- [NASA Postdoctoral Program \(7/1/2023\)](#)
- [Early Career Investigator Program in Earth Science \(8/11/2023\)](#)

## News, Education, and Outreach

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- [Planetary ReaCH: 2023 Culturally Inclusive Planetary Engagement Workshops](#)
  - June 8-10 Tulane University, New Orleans LA
  - June 22-24 SETI Institute, Mountain View CA
  - August 17-19 Perez Art Museum, Miami FL
- [Astrobiologists Britney Schmidt and Peter David Named to the 2023 TIME 100 List](#)  
Congrats Britney & Peter!
- Subscribe to the [NASA Astrobiology SciComm Guild](#)
- Subscribe to the [NASA Astrobiology Mailing List](#)