



# 2019 Astrobiology Meeting

Bellevue, Wa. June 24–28

## Media Tips by Date

The following is a list of potentially newsworthy research selected by AGU's public information office:

### Monday, June 24

Talk	<a href="#">Habitability of Planets and Moons in Binary and Higher Order Systems</a>	11:00 AM Auditorium
Talk	<a href="#">Obliquity Variations and Habitability in Alpha Centauri AB</a>	11:15 AM Auditorium
Talk	<a href="#">On the habitability of eccentric planetary S-type motion in binary stars</a>	11:25 AM Auditorium
Talk	<a href="#">Gaseous Biosignatures on Anoxic Exoplanets: The Curious Case of Phosphine</a>	11:30 AM Cedar Ballroom
Talk	<a href="#">Habitable Environments Surrounding Moderately Close Binaries</a>	11:45 AM Auditorium
Talk	<a href="#">Climate Extremes and Habitability Constraints for Circumbinary Planets</a>	11:55 AM Auditorium
Talk	<a href="#">Incorporating Lessons from Geoarchaeology and Geoforensics into the Search for Non-Terrestrial Agnostic Biosignatures</a>	12:00 PM Cedar Ballroom
Talk	<a href="#">Age of Enceladus and its ocean</a>	1:30 PM Regency EFG
Talk	<a href="#">Wind-driven Ocean Circulation on Tidally Locked Aqua-planets</a>	2:45 PM Regency EFG
Talk	<a href="#">(How) Do oceans overturn on other worlds?</a>	3:00 PM Regency EFG
Poster	<a href="#">The Acetylene-Butane Co-Crystal: A Potentially Abundant Molecular Mineral on Titan</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Assessment of Isoprene as a Possible Biosignature Gas in Exoplanets with Anoxic Atmospheres</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Unlocking Europa's Ocean</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Analysis of Human-commensal Microbes at a Mars Analog Habitat</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Expression of dsrAB in Desulfotalea psychrophila Subjected to Simulated Martian Conditions.</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">White Dwarfs and Icy Worlds - Evolving Habitability</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Testing methods to detect 3D vegetation structure on exoplanets</a>	7:00 PM Evergreen Ballroom

Poster	<a href="#">A cold and alkaline Hadean ocean resulted from carbonate-silicate geochemical cycle</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Ocean ventilation, nutrient cycling, and oxygen-based biosignatures on exoplanet waterworlds</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Quantifying the Atmospheric Response of Earth-like Planetary Bodies to Varying Levels of Stellar EUV/UV</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">High Gas Concentrations in Enceladus' Ocean, Potential Fuel for Microbial Life</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Nature, distribution and origin of CO<sub>2</sub> on Enceladus</a>	7:00 PM Evergreen Ballroom
Poster	<a href="#">Modeling the Stellar Flux of Circumbinary Planets</a>	7:00 PM Evergreen Ballroom

### Wednesday, June 26

Talk	<a href="#">Comets as Tracers of the Origin and Evolution of Volatiles throughout the Solar System</a>	10:15 AM Cedar Ballroom
Talk	<a href="#">Cognitive Planetary Transitions: An Astrobiological Perspective on the "Sapiezoic Eon".</a>	10:15 AM Auditorium
Talk	<a href="#">Intelligence as a planetary process</a>	10:30 AM Auditorium
Talk	<a href="#">The Coupled History of Planets and Civilizations.</a>	11:05 AM Auditorium
Talk	<a href="#">Oxygenation of the 2.2 Ga Deep Ocean: Evidence from Birimian Greenstone Belt, Ghana</a>	11:45 AM Regency EFG
Talk	<a href="#">The Devonian Plant Revolution: Roots, Weathering and the Impact on Global Biogeochemical Cycling</a>	12:00 PM Regency EFG
Talk	<a href="#">Autonomous synthesis and boot-up from a homogeneous chemical mixture of populations of giant vesicles showing birth, growth, self-replication, extinction and competition cycles</a>	2:15 PM Grand IJ
Talk	<a href="#">Dissipation, Biosignatures and Technosignatures: A Planetary Classification</a>	2:52 PM Cedar Ballroom
Talk	<a href="#">Biochemical and Bioinformatic Insights into the Metabolism of Spacecraft Cleaning Agents</a>	3:00 PM Auditorium
Talk	<a href="#">Oceans Across Space and Time: Windows into Ocean World Evolution</a>	5:15 PM Auditorium

Talk	<a href="#">Microbial communities and impact enhanced habitats in the Chicxulub impact crater</a>	5:45 PM Regency ABC
Talk	<a href="#">The Energetic Habitability of Enceladus may be Tenuous</a>	5:45 PM Auditorium
Talk	<a href="#">Collective cognition in the arms of the octopus</a>	6:00 PM Regency EFG
Poster	<a href="#">Spectral Kurtosis Identification of Deep-Space Technosignatures</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Nanosecond Freezing of Water at High Pressures Relevant to Astrobiology</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Oxidation of the Interiors of Carbide Exo-Planets</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Towards Creation of a U-DNA Genome Using Synthetic Biology Tools</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Spontaneous emergence of chirality and chiral domains in proto-nucleobase assemblies: Implications for the origin of bio-homochirality</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">A limited habitable zone for complex life</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Extra-large and morphologically unique microfossils of the 2.52 Ga Gamohaam Formation, South Africa</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">The Mammalian Immune System Recognizes and Responds to Peptides containing Rare Amino Acids found on Meteorites</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">De novo Origins of Multicellularity in Response to Predation</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Rock-water interactions on icy ocean worlds as a mechanism for production of chemical energy to support life</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Exo-oceanography and the Search for Life in Uncharted Waters</a>	7:15 PM Evergreen Ballroom
Poster	<a href="#">Ocean Planets on Eccentric Orbits: Effects of Rotation Rate on Observables</a>	7:15 PM Evergreen Ballroom

## Thursday, June 27

Talk	<a href="#">Competition and Cooperation at the Uppermost Temperature Limits to Life</a>	11:00 AM Auditorium
Talk	<a href="#">An in vitro approach to the geochemical, protocellular, and genomic environments of early evolution</a>	11:15 AM Grand IJ

Talk [A 4D Perspective on Aerobic Subsurface Habitats on Mars and How to Search for Them](#) 4:00 PM Regency ABC

**Friday, June 28**

Talk [Fungal Spore Resistance to Space Radiation](#) 10:15 AM Cedar Ballroom

Talk [Catabolisms 'Missing in Nature'](#) 1:30 PM Grand IJ

Talk [Iron-Sulfur Deposits Could Indicate Ecological Niches of the Extant Martian Life](#) 2:15 PM Grand IJ

Talk [Salts in Gale Crater, Mars: Constraining Habitable Ancient Lake and Groundwater Environments](#) 2:45 PM Regency EFG