

Program

Astrobiology Science Conference 2010: Evolution and Life: Surviving Catastrophes and Extremes on Earth and Beyond

April 26–29, 2010

To access the abstracts, use the hand tool of your Acrobat Reader to click on the name of any session.

After the full program listing for that session appears, click on the title of a presentation to view the abstract for that presentation.

Monday, April 26, 2010

8:00 a.m.	Crystal Salon A	50 Years of Exobiology and Astrobiology: Greatest Hits
8:00 a.m.	Crystal Salon B	Extraterrestrial Molecular Evolution and Pre-Biological Chemistry: From the Interstellar Medium to the Solar System I
8:00 a.m.	Crystal Salon E	Human Exploration, Astronaut Health
8:00 a.m.	Crystal Salon C	Diversity in Astrobiology Research and Education
8:00 a.m.	Crystal Salon F	Titan: Past, Present and Future
10:30 a.m.	Crystal Salon A	Energy Flow in Microbial Ecosystems
10:30 a.m.	Crystal Salon B	Extraterrestrial Molecular Evolution and Prebiological Chemistry: From the Interstellar Medium to the Solar System II
10:30 a.m.	Crystal Salon E	Astrobiology in Orbit
10:30 a.m.	Crystal Salon C	Astrobiology and Interdisciplinary Communication
10:30 a.m.	Crystal Salon F	Science from Rio Tinto: An Acidic Environment
2:00 p.m.	Crystal Salon A	Can We Rule Out Spontaneous Generation of RNA as the Key Step in the Origin of Life?
4:00 p.m.	Crystal Salon A	How Hellish Was the Hadean Earth?
6:00 p.m.	Marina Plaza Ballroom	Poster Session Extraterrestrial Molecular Evolution and Pre-Biological Chemistry Prebiotic Evolution: From Chemistry to Life RNA World Terrestrial Evolution: Implications for the Past, Present, and Future of Life on Earth Hydrothermal Systems and Organosynthesis Processes: Origin and Evolution of Life

Poster Session (continued)

[Virology and Astrobiology](#)

[Horizontal Genetic Transfer and Properties of Ancestral Organisms](#)

[Life in Volcanic Environments: On Earth and Beyond](#)

[Impact Events and Evolution](#)

[Evolution of Advanced Life](#)

[Evolution of Intelligent Life](#)

[Education in Astrobiology in K-12](#)

[Origins of Molecular Asymmetry, Homochirality, and Life Detection](#)

[Astrobiology and Interdisciplinary Communication](#)

[Diversity in Astrobiology Research and Education](#)

[Integrating Astrobiology Research Across and Beyond the Community](#)

[Policy and Societal Issues: Dealing with Potential Bumps in the
Astrobiology Road Ahead](#)

[Results from ASTEP and Other Astrobiology Field Campaigns](#)

[Energy Flow in Microbial Ecosystems](#)

[Psychrophiles and Polar Environments](#)

[Deserts and Evaporite Basins and Associated Microbialite Systems](#)

[Life in Modern Microbialite Systems — Function and Adaptation](#)

[Free Oxygen: Proxies, Causes and Consequences](#)

[Bioessential Elements Through Space and Time](#)

[Water-Rich Asteroids and Moons: Composition and
Astrobiological Potential](#)

[Biosignatures: Tools and Developments](#)

[Robotics and Instrumentation for Astrobiology](#)

[State of the Art in Life Detection](#)

[Astrobiology in Orbit](#)

[Survival, Growth, and Evolution of Microorganisms in Model
Extraterrestrial Evolution](#)

[Search for Intelligent Life](#)

[Habitability Potential of Mars](#)

[How and Where Should We Seek Signs of Life on Mars?](#)

[Titan: Past, Present and Future](#)

[Extrasolar Terrestrial Planets: Formation, Composition, Diversity,
Habitability and Life](#)

[Human Exploration, Astronaut Health](#)

[Science from Rio Tinto: An Acidic Environment](#)

[Adaptation of Life in Hostile Space Environments](#)

Tuesday, April 27, 2010

8:00 a.m.	Crystal Salon A	Results From ASTEP and Other Astrobiology Field Campaigns I
8:00 a.m.	Crystal Salon B	Prebiotic Evolution: From Chemistry to Life I
8:00 a.m.	Crystal Salon E	Adaptation of Life in Hostile Space Environments
8:00 a.m.	Crystal Salon C	Extrasolar Terrestrial Planets I: Formation and Composition
8:00 a.m.	Crystal Salon F	Collaborative Tools and Technology for Astrobiology
10:30 a.m.	Crystal Salon A	Results From ASTEP and Other Astrobiology Field Campaigns II
10:30 a.m.	Crystal Salon B	Prebiotic Evolution: From Chemistry to Life II
10:30 a.m.	Crystal Salon E	Survival, Growth, and Evolution of Microorganisms in Model Extraterrestrial Environments
10:30 a.m.	Crystal Salon C	Extrasolar Terrestrial Planets II: Habitability and Life
10:30 a.m.	Crystal Salon F	Virology and Astrobiology
2:00 p.m.	Crystal Salon A	Planetary Science Decadal Survey Update
3:00 p.m.	Crystal Salon A	Astrobiology Research Funding
4:15 p.m.	Crystal Salon A	Lightning Talks — Poster Redux

Wednesday, April 28, 2010

8:00 a.m.	Crystal Salon A	Bioessential Elements Through Space and Time I
8:00 a.m.	Crystal Salon B	State of the Art in Life Detection
8:00 a.m.	Crystal Salon E	Terrestrial Evolution: Implications for the Past, Present, and Future of Life on Earth
8:00 a.m.	Crystal Salon C	Psychrophiles and Polar Environments
8:00 a.m.	Crystal Salon F	Life in Volcanic Environments: On Earth and Beyond
8:00 a.m.	Amphitheater	Geochronology and Astrobiology On and Off the Earth
10:30 a.m.	Crystal Salon A	Bioessential Elements Through Space and Time II
10:30 a.m.	Crystal Salon B	Origins and Evolution of Genetic Systems
10:30 a.m.	Crystal Salon E	Evolution of Advanced Life
10:30 a.m.	Crystal Salon C	Water-Rich Asteroids and Moons: Composition and Astrobiological Potential
10:30 a.m.	Crystal Salon F	Impact Events and Evolution
10:30 a.m.	Amphitheater	Lightning Talks: A Set of Short, Informal Talks on a Breadth of Astrobiology Topics I
2:00 p.m.	Crystal Salon A	A Warm, Wet Mars?
4:00 p.m.	Crystal Salon A	Titan Versus Europa — Potential for Astrobiology

Thursday, April 29, 2010

8:00 a.m.	Crystal Salon A	Habitability Potential of Mars
8:00 a.m.	Crystal Salon B	Biosignatures: Tools and Development I
8:00 a.m.	Crystal Salon E	Origins of Molecular Asymmetry, Homochirality, and Life Detection
8:00 a.m.	Crystal Salon C	Deserts and Evaporite Basins and Associated Microbialite Systems
8:00 a.m.	Crystal Salon F	Ancient Life and Synthetic Biology: Crossroad of the Past and Future
8:00 a.m.	Amphitheater	Lightning Talks: A Set of Short, Informal Talks on a Breadth of Astrobiology Topics II
10:30 a.m.	Crystal Salon B	Biosignatures: Tools and Development II
10:30 a.m.	Crystal Salon E	Free Oxygen: Proxies, Causes and Consequences
10:30 a.m.	Crystal Salon C	Life in Modern Microbialite Systems — Function and Adaptation
10:30 a.m.	Crystal Salon F	Hydrothermal Systems and Organosynthesis Processes: Origin and Evolution of Life
2:00 p.m.	Crystal Salon A	Where Should We Go on Mars to Seek Signs of Life?
2:00 p.m.	Crystal Salon B	Search for Intelligent Life I. Innovative SETI Observing Programs and Future Directions
2:00 p.m.	Crystal Salon E	Integrating Astrobiology Research Across and Beyond the Community
2:00 p.m.	Crystal Salon F	Education in Astrobiology in K-12
4:15 p.m.	Crystal Salon B	Search for Intelligent Life II. Global Engagement and Interstellar Message Construction

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