



## ISDC 2022 Schedule

As of 5-26-22

### Registration

8:00 am - 7:00 pm

### Morning Plenary

8:30 am - 9:45 am

### Student Plenary

10:00 am - 12:00 noon

## Sunday, May 29

### Regency Foyer

**Regency Landing** (Student Registration 9:00 am - 6:00 pm)

### Regency EF

Space 2.0: The New Space Age Continues

Panelists: Lori Garver, Founder and CEO, Earthrise Alliance and Former National Space Society Executive Director and Jeff Greason, Chief Technologist & Co-Founder, Electric Sky; Chairman, Tau Zero Foundation, National Space Society Board of Governors. Moderator: Rod Pyle, Space Author, Journalist and Editor-in-Chief, *Ad Astra* Magazine, National Space Society

### Potomac Room

"Kid Astronauts: The Humannaires Spacesuit for Children"

"How To Prepare for the Astronaut Job Fair"

Keynote Speaker: Mike Mongo, Artist-Astronaut Teacher, author, *The Astronaut Instruction Manual*, and founder *Mike Mongo's Astronaut Job Fair*

### 10:00 am - 12:00 noon

#### LaunchPad

10:00 am

10:05 am

10:13 am

10:21 am

10:29 am

10:35 am

10:43 am

10:51 am

10:59 am

11:05 am

11:13 am

11:21 am

11:25 am

11:33 am

11:41 am

11:49 am

11:55 am

#### Moon

10:00 am

10:20 am

10:45 am

11:00 am

11:15 am

11:40 am

### Morning Sessions

#### Regency A

Introduction. Christian Meza (Host, LaunchPad)

The Suprising Connection Between Humanity's Future and Your Dinner Last Night. Tim Alatorre (Orbital Assembly Corporation)

A Rescue Agreement for the New Age of Space Exploration and Habitation. Matthew Harris (Beyond Earth Institute)

Sustainable Space Tourism: An Introduction. Annette Toivonene (Hagaa-Helia University of Applied Sciences, Finland)

Questions

An Educational Approach to Planetary Defense to Drive Public Support. Nancy Wolfson (IAF Risk Management Committee)

Empowering Young Women to Participate in the Growing Space Economy. Kim Macharia (Space Prize Challenge)

Spaceball: Sports in Microgravity. Justin Park (Intergalactic Education)

Questions

Carbon Nanotubes: From Fiction to High-Strength Fibres. Gadhaddar Reddy (NoPo NanoTechnologies)

Next-generation Spacesuit Design Considerations. Daniel J. Klopp (ILC Dover)

Questions

A Food and Nutrition Plan for Spaceflight to Mars: Healthy Gut Microbiome Takes Us to Mars. Zsuzsanna Benyó (SpaceABC)

Automated Psychotherapy in a Spaceflight Environment: Advantages, Limitations and Unknowns. Logan Smith (Oklahoma State University)

GrowMars Expanding Loop Process. Daniel Tompkins (GrowMars)

Space Health and Human Factors

Closing Remarks. Christian Meza (Host, LaunchPad)

#### Regency B

#### Progress Toward the Vision of the Moon Village

Moon Village Architecture WG Case Study. John C. Mankins (Moon Village Association)

The International Moon Day. Dr. Nasr Al-Sahhaf (Moon Village Association)

NSS Student Space Settlement Contest Presentation

Global Exploration Group on Sustainable Lunar Activities. Kate Calderwood (Moon Village Association)

Candidate Sites for Artemis Base Camp. Dr. Pascal Lee (Mars Institute, SETI Institute, & NASA Ames Research Center)

Program for Energy Space Countries. Ghanim Alotaibi (Moon Village Association)



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### Sunday, May 29

#### Bio-Sustainability

10:00 am

10:45 pm

11:00 am

#### Space Settlement

10:00 am

10:30 am

11:15 am

#### Lunch

12:00 noon - 1:50 pm

#### Student Awards

2:00 pm - 5:00 pm

2:00 pm - 6:00 pm

#### Science Fiction to Fact

2:00 pm

3:00 pm

4:00 pm

#### Moon

2:00 pm

2:25 pm

2:50 pm

3:15 pm

3:40 pm

4:05 pm

4:30 pm

4:55 pm

5:20 pm

5:45 pm

#### Bio-Sustainability

2:00 pm

2:30 pm

3:00 pm

4:00 pm

#### Regency C

The Ultimate Interplanetary Travel Guide: A Futuristic Journey Through the Solar System. Dr. Jim Bell (School of Earth & Space Exploration, Arizona State University)

NSS Student Space Settlement Contest Presentation

NewSpace: What's Really New? Dr. Andrew Aldrin (Embry Riddle University, Buzz Aldrin Space Institute, Florida Institute of Technology)

#### Regency D

Moving from Earth to Space: Transferring in use High Density Farming to Space Settlements. Bryce Meyer (St. Louis Space Frontier)

Space Analog for the Moon and Mars at Biosphere 2. Kai Staats (University of Arizona Biosphere 2)

The Center for Human Space Exploration at the University of Arizona. Trent Tresch (University of Arizona Biosphere 2)

#### Regency EF

Bringing Earth Life to the Red Planet

Keynote Speaker: Dr. James Green, Senior Advisor, NASA Headquarters

Presenting of Jim Baen Memorial Short Story Award

MC: Holly Melear, CEO & Founder, STEAMSPACE Education Outreach®

#### Potomac Room

NSS Space Settlement Contest Student Awards Ceremony

#### Afternoon Sessions

#### Regency A

Fax Me Up Scottie! How Science Fiction Inspires Actual Science. Dr. Anthony Paustian (National Space Society)

The Science Behind Star Trek: Bringing Science Fact into Science Fiction. Dr. Erin Macdonald (Astrophysicist and Technical Consultant for Star Trek)

Panel: Science Fiction to Fact. Dr. Erin Macdonald (Astrophysicist and Technical Consultant for Star Trek), Rod Pyle (*Ad Astra* Magazine), and Sean Graham (CreatorUp). Moderator: Dr. Anthony Paustian (National Space Society)

#### Regency B

Ice Caves On The Moon? Dr. Pascal Lee (Mars Institute, SETI Institute, & NASA Ames Research Center)

The Feasibility of Helium-3 as the Low Hanging Fruit of Lunar Commercial Mining. Charles Radley

Living on the Moon. AJ Link (Space Law Communicator)

Outer Space Law and Intellectual Property Law - Conflicts and Confluences. Ed Koellner (USAA Federal Savings Bank)

Toward an Acceptable Framework for Off-Planet Resource Utilization. Wes Faires (Space Rights, LLC)

Perspectives on NASA's Lunar Regolith Extraction Program: Implications for Property Ownership in Outer Space. Lauren Andrade (Space Lawyer)

From Apollo to Artemis: The Internationalization of Space Settlement. Kwanme Newton (Clean Orbit)

From Brownsville to the Moon: Expanding Frontiers and Lunar Station Inspiring South Texas Astropreneurs. Dr. Frederick Jenet (Space Entrepreneur)

The Cost of Uncertainty: An Argument for Lunar Safety Zones. Michelle Hanlon (National Space Society)

Panel Discussion: Moderated by Michelle Hanlon

#### Regency C

Next Generation Spacesuit Design Considerations. Daniel J. Klopp (ILC Dover)

Automated Psychotherapy in a Spaceflight Environment: Advantages, Uses, and Unknowns. Logan Smith (Oklahoma State University)

Creating a Space Settlement Cambrian Explosion. Kent Nebergall (MacroInvent.com)

[Live podcast from Regency Foyer] Megastructure Compendium. Isaac Arthur (*Science & Futurism with Isaac Arthur*)



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#### Space Settlement

2:00 pm

2:30 pm

3:00 pm

3:45 pm

4:00 pm

4:30 pm

5:00 pm

5:30 pm

5:45 pm

#### Regency D

GrowMars Expanding Loop Process. Daniel Tompkins (GrowMars)

Targeted Electrostatic Deposition of Water and Nutrients on Plant Roots for Space Missions.

Rahman Pejman (Rutgers University)

Panel: Space Settlement Farming — Mechanical and Bioregenerative Systems. Bryce Meyer (St. Louis Space Frontier), Kai Staats (University of Arizona Biosphere 2), Trent Tresch, Rahman Pejman (Rutgers University), Richard Soilleux (The British Interplanetary Society) and Daniel Tompkins (GrowMars). Moderators: Al Globus (National Space Society) and Anita Gale (National Space Society)

Break

Avalon, A Redesign of G. K. O'Neill's Island 1 Orbital Settlement. Richard Soilleux (The British Interplanetary Society)

Practical Principles of Artificial Gravity. Theodore Hall (University of Michigan)

Moving from Exploration to Residency in Orbit, on the Moon, and on Mars. Timothy Morris (Northrop Grumman)

The Atlantis Project: Infrastructure for Off-World Settlement Supply. Phil Swan (The Atlantis Project)

The Atlantis Project: Infrastructure for Off-World Settlement Supply. Ceana Prado Nickel and Phil Swan (The Atlantis Project)

#### Cocktail Reception

6:00 pm - 7:00 pm

#### Regency Foyer

Open reception includes a cash bar and appetizers.

#### Dinner

7:00 pm - 9:00 pm

#### Regency EF

"Escaping Gravity"

Keynote Speaker: Lori Garver, Founder and CEO, Earthrise Alliance and Former National Space Society Executive Director

MC: Michelle Hanlon, President, National Space Society; Space Lawyer, University of Mississippi; Co-Founder, For All Moonkind

#### NSS Meeting

10:00 pm - Till

NSS Networking

### Monday, May 30

#### NSS Board Meeting

9:00 am - 7:00 pm

Washington Room