Lunar Surface Innovation
CONSORTIUM

# Extreme Environments Focus Group February Meeting

**February 8, 2022**

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# Today's Agenda

- LSIC Updates
- MOSA
- EE Winter/Spring Meetings Path Forward
- Featured Presentations (Ben Bussey and Angela Stickle)
  - Illumination conditions at the lunar poles and tools being developed at APL
- Open floor

# LSIC Updates

*Lunar Community Meetings*

- *LSSW Virtual Session 14: Heliophysics Applications Enabling and Enabled by Human Exploration of the Lunar Surface*
  - Registration Deadline: February 17, 2022
  - Event Date: February 17, 2022 (virtual)
  - https://www.hou.usra.edu/meetings/lunarsurface2020/registration/
- *Regolith to Rebar Workshop*
  - Registration Deadline: February 15, 2022
  - Event Date: February 23, 2022 (virtual)
  - https://lsic.jhuapl.edu/Events/Agenda/index.php?id=177
- *53rd Lunar and Planetary Science Conference*
  - Registration Deadline: Mar 11, 2022 (deadline for virtual attendance;  in person cutoff earlier)
  - Event Date: March 7-11, 2022 in The Woodlands, Texas
  - https://www.aeroconf.org/
- 38th Hardened Electronics and Radiation Technology (HEART) Conference
  - Clearances Due: February 14, 2022
  - Event Date:  March 7-11, 2022 in Tarrytown, NY
  - https://www.heartconferenceus.org/

# LSIC Updates

*Lunar Community Meetings (continued)*

- LSIC's Spring Meeting
  - Abstracts Due: March 4, 2022
  - Event Date:  May 4-5, 2022 (hybrid)
  - https://lsic.jhuapl.edu/Events/Agenda/index.php?id=200
- *2022 IEEE Aerospace Conference*
  - Registration Deadline: February 27, 2022
  - Event Date: March 5-12, 2022 in Big Sky, MT
  - https://www.aeroconf.org/
- *16th Spacecraft Charging Technology Conference* (SCTC)
  - Abstracts Due: February 28, 2022
  - Event Date:  April 4-8, 2022 (virtual)
  - https://lsic.jhuapl.edu/Events/Agenda/index.php?id=200
- *IEEE Nuclear & Space Radiation Effects Conference (NSREC)*
  - Event Date: July 18-22, 2022 in Provo, Utah
  - https://www.nsrec.com/

# LSIC Updates

*Lunar Community Meetings (continued)*

- AIAA ASCEND 2022
  - Call for Content Deadline: March 31, 2022
  - Event Date:  October 24-26, 2022 (hybrid)
  - https://www.ascend.events/2022-ascend/

# LSIC Updates

*Funding Opportunities*

- Release of NASA Space Technology Mission Directorate - Early Career Faculty
  - Proposals must address one of the following topics:
    - Topic 1 – Development of Lightweight Solar Sail Attitude Control Technologies
    - Topic 2 – Hibernation and Recovery of Solar-Powered Systems for Lunar Missions
    - Topic 3 – Tailorable Composite Design Concepts towards Dimensionally Stable Structures
  - Notices of Intent Due: March 2, 2022
  - Proposals Due: March 31, 2022
  - https://nspires.nasaprs.com/external/solicitations/summary.do?solId={BF27BB84-C93F-9D37-4FFE-8790D23AD076}&path=&method=init
- NASA Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) 2022 Phase I solicitation
  - Proposals Due: March 9, 2022
  - https://sbir.nasa.gov/solicitations

Please visit LSIC website for full list

http://lsic.jhuapl.edu/Resources/Funding-Opportunities.php

# LSIC | MOSA Working Group

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- **LSIC Modular Open System Approach (MOSA) Working Group**
  - Goal:
    - Document community feedback on recommended lunar MOSA activities
      - Compile existing efforts and identify overlap
      - List systems that could benefit from MOSA
      - Perform system decompositions to find critical interfaces & what requirements are needed to ensure interoperability
  - Plan
    - Each LSIC focus group is participating and has a POC
    - Cross focus group participation is encouraged
  - Points of Contact
    - Lead/Coordinator: James Mastandrea
    - System Engineer: Kristin Jaburek
    - Dust Mitigation: Jorge Núñez
    - Excavation & Construction: Claudia Knez
    - In Situ Resource Utilization : Jodi Berdis
    - Surface Power: Samantha Andrade
    - Extreme Environment: Jamie Porter
    - Extreme Access: Angela Stickle

# LSIC | MOSA Working Group

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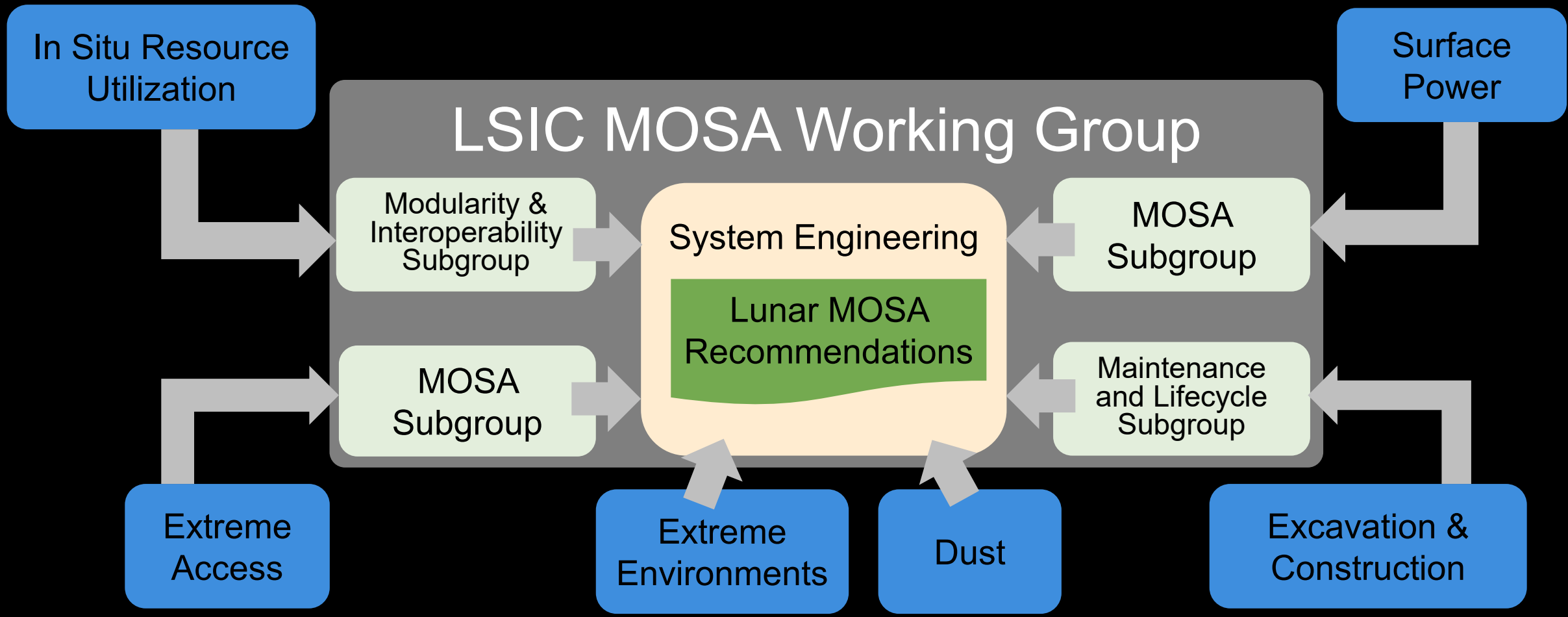

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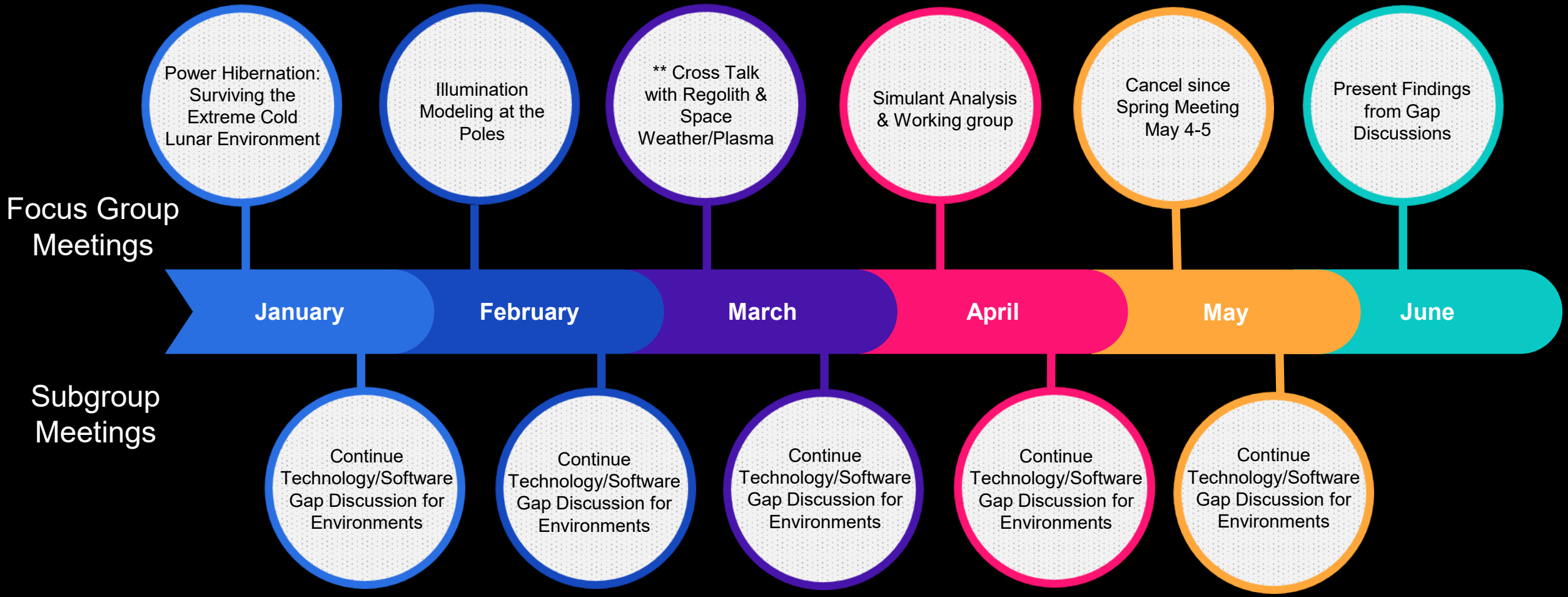
# EE Winter Meeting Path Forward




* Joint TBD workshop with EA in late spring/early summer

** Meeting moved back one week to not overlap Lunar and Planetary Science Conference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