

# Tuesday

## Clifford Hall Rm 210

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**8:30am**

**Arrival**

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- 8:40 Day 1 Introduction  
*Moderator: Sean McCloat*
- 8:45 Martian Meteorologists: Forecasting the Storms of Tomorrow  
*Denise Buckner*
- 9:00 Farming and the Future of Off Planet Colonization  
*Jennifer Russell*
- 9:15 Electrodynamics Excavation of Lunar Regolith  
*Taren Wang*
- 9:30 Dinoflagellates (Bioluminescent Phytoplankton): A Study of Enzyme Kinetics in Microgravity  
*James Stoffel \**
- 9:45 Graphene Oxide Membranes for Terrestrial and Celestial Water Purification  
*Chris Buelke*
- 10:00 Aquaporin Membranes for Water Purification on the International Space Station  
*Jeremy Lewis*
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**10:15**

**BREAK – 15 minutes**

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- 10:30 Characterization of Silk Material for Biomimetic Spinning and Film Casting  
*Bradley Hoffman*
- 10:45 Balloon Line Autonomous Instrument Using Nichrome Wire and Electricity  
*Peter Henson*
- 11:00 Acetonitrile in Titan's Atmosphere from ALMA Radio Telescope Observation  
*Devi Dina*
- 11:15 Lightcurve Study of Vp-Type Asteroids  
*Matt Nowinski \**
- 11:30 Exploring Star Formation in Cluster Galaxies  
*Sandanuwan Kalawila*
- 11:45 BinCat: A Catalog of Nearby Binary Stars with Tools for Calculating Light-Leakage for Direct Imaging Mission  
*Elias Holte*
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**12:00**

**LUNCH**

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- 1:00 Mars Games: Crew Psychosocial Support on Journey to Mars and Beyond  
*Sheyna Gifford \**
- 1:15 Living in the Habitat  
*Stefan Tomovic*
- 1:30 Impact of Hands-On Professional Development Workshop in North Dakota on K-12 Teacher Confidence in Space Sciences  
*Marissa Saad & Caitlin Nolby*

1:45 Team Raptor 2017-2018 NASA RMC  
*UND Lunabotics \**

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**2:00 BREAK – 15 minutes**

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2:15 The Importance of a Liquid Cooled Garment for Extravehicular Activity  
*Kayla Daniels*

2:30 Development of Remotely Operated Sensor based Greenhouse for Planetary Habitat Research  
*Fnu Anamika*

2:45 Benefits of Indoor Houseplant for Toxic Air Removal in Living Module of ILMAH at UND  
*Rakesh Ravishankar*

3:00 Cosmic Sheep Counting Complications During Mission IV  
*Joseph Clift*

3:15 Testing Executive Function Memory with Different Repeated Measures Learning Techniques Experiment using Disk-Transfer Tasks  
*Terry Rector, with Travis Nelson, Rakesh Ravishankar, and Joseph Clift*

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**3:30 BREAK – 15 minutes**

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3:45 Live Presentation  
from  
Crew Members of ILMAH Mission V

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## Wednesday Clifford Hall Rm 210

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**8:40** Arrival

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8:50 Day 2 Introduction

*Moderator: Sophie Orr*

9:00 The Case for an International On-Orbit Servicing Regulatory Framework

*William Elder*

9:20 Active Removal of Orbital Debris

*Patrick Heuer*

9:40 Cis-lunar Missions and Architecture: The Driving Requirements for Nuclear Power in Space

*Kyle Kirkpatrick*

10:00 An Analysis of Helium-3 Sites on the Moon

*Madyson Reece*

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**10:20**

**BREAK – 20 minutes**

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10:40 Remote Sensing Applications to Coastal Zone Management

*Melissa Templeton*

11:00 Asteroid Mining: Active Asteroids and Crewed Mining Mission

*Benjamin Archer*

11:20 *Lauren McQuone*

11:40 Finding NewSpace Utilizing LOTUS: Lander/Orbiter Trans-Upper Stage

*Chrishma Singh-Derewa*

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**12:00**

**LUNCH**

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1:15 **Poster Session**

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**2:45pm – Signing of ASN Flag by Jim Buchli  
Dean of Aerospace Paul Lindseth will be present**

**3:00**

Keynote Address - From North Dakota to NASA

*James F. Buchli*