



MSGC 2021 Fall Conference Agenda

Saturday, October 16th

Prince Conference Center

For those of you joining us virtually: <https://umich.zoom.us/j/97617964277>
 Webinar ID: 976 1796 4277 | Passcode: 061522 | +1 312 626 6799 US (Chicago)

- | | |
|--------------------------|---|
| 8:00am – 9:00am | Registration, Breakfast & Poster Set Up |
| 9:00am – 9:05am | Welcome & Introductions (Great Hall) <i>Mark Moldwin, PhD - Arthur F. Thurnau Professor, Department of Climate & Space Sciences & Engineering, Director of NASA's Michigan Space Grant Consortium</i> |
| 9:10am – 9:20pm | Dean's Special Welcome (Great Hall) <i>Arlene Hoogewerf, Ph.D., Dean of the School of STEM and Health Sciences, Calvin University.</i> |
| 9:30am – 10:30am | Keynote: What We Can Learn about Science from Michigan Dune Research (Great Hall) <i>Deanna van Dijk – Professor of geography, Department of Geology, Geography, and Environment, Calvin University</i> |
| 10:30am – 10:40am | Break |
| 10:40am – 11:40am | Oral Presentations Session 1 (Great Hall) Experiential Training of STEM Teachers <i>Susan Ipri Brown, Assistant Professor of Engineering Instruction, Hope College, BSE/MS Mechanical Engineering</i> COVID Camp: Process and outcomes from a remote summer STEM camp experience <i>Kris Pachla, PhD., Director, GVSU Regional Math & Science Center. GVSU</i> <i>Chelsea Ridge, MEd., Mathematics Program Coordinator, GVSU Regional Math & Science Center, GVSU</i> |

*Diane Miller, MPA, Business and Community Outreach
Coordinator, GVSU Regional Math & Science Center, GVSU*

**The Hygiene Hypothesis: Far-reaching implications for
immune health**

*Kristin Renkema, PhD, Assistant Professor, Biomedical
Sciences Dept., GVSU*

**Surface Coatings from Composite Dry Lubrication
Schemes**

*Alana Policastro, Chemistry Dept., Hope College
Meagan Elinski, PhD, Chemistry Dept., Hope College*

**Land use, but not altitude, affects airborne bacterial
community composition**

*Christian Smith, BS, MS Student, Dept. of Biological
Sciences, WMU
Kathryn Docherty, PhD, Associate Professor of Biological
Sciences, Dept. of Biological Sciences, WMU*

**Forward Image Prediction for Environment Exploration
Using Model Predictive Control**

*Dominic Messina, B.S. Chemical Engineering, Dept. of
Chemical Engineering & Materials Science, WSU
Helen Durand, Ph.D. Chemical Engineering, Dept. of
Chemical Engineering & Materials Science, WSU*

11:40am – 1:10pm

**Lunch, Networking and Dune, Ecosystem Preserve &
Dice Museum (Lunch in Great Hall & Fireside Room)**

1:10pm – 2:10pm

Oral Presentations Session 2 (Great Hall)

**Constructing Digital Terrain Models from Lake Michigan
Dune Imagery**

Blake Harlow, Undergraduate Student, Mr., Hope College

**Lake Responses to Elevated Levels of Chloride and
Phosphorus**

*Ellen Foley, Graduate Student, Annis Water Resources
Institute, GVSU*

*Alan Steinman, Ph.D., Allen & Helen Director, Annis Water
Resources Institute, GVSU*

**Topography-Based Tectonic Analysis for Interpretation
of Magma Migration Under the Southern Mid-Atlantic
Ridge**

*Simon Detmer, Geology major, Dept. of Geology,
Geography & Environmental Sciences
C. Renee Sparks, Phd Geology, Hope College, Calvin
University*

**Mineral film growth at the air/liquid/iron interface and
the effect of cations from chloride electrolytes**

*Kathryn A. Perrine, Ph.D., Assistant Professor, Dept. of
Chemistry, MTU*

**Exploring the Effects of Prairie Restoration Management
on Soil Microbial Carbon Storage**

*Ellen Badger Hanson, PhD Student, Biological Sciences,
WMU*

*Kathryn Docherty, PhD, Associate Professor, Biological
Sciences, WMU*

**Meteorite or Meteor-Wrong: Recognizing minerals and
textures that are out-of-this-world**

C. Renee Sparks, PhD, Visiting Professor, Hope College

2:10pm – 3:10pm

Poster Presentations

Great Hall & Fireside Room

3:10pm – 4:00pm

Oral Presentations Session 3 (Great Hall)

**The cosmic-ray positron spectrum and its implications
on the properties of Milky Way pulsars**

Ilias Cholis, PhD, Ass. Prof., Physics, Oakland University

**Using MESA to Test our Theory of Contact Binary Star
Evolution**

*Lauren Henderson, Undergraduate, Calvin University
Physics and Astronomy*

*Jenn Lau, Undergraduate, Calvin University Physics &
Astronomy*

*Larry Molnar, Ph.D., Professor, Observatory Director, Calvin
University Physics & Astronomy*

BLUE Program: Student-Developed Spacecraft

*Owen Marr, BSE Aerospace Eng, pursuing MEng in Space
Eng, UM*

*Lucas Lorenz, pursuing BSE Computer Eng. Marlee Trager,
pursuing BSE Aerospace, Eng. UM*

Jack Liu, pursuing BSE Computer Science, UM

Liam Spence, BSE Aerospace Eng, pursuing MEng in Space Eng. UM

Taha Teke, pursuing BS Computer Science. UM

Multiple Stellar Populations in Globular Clusters

Willem Hoogendam, N/A, Mr., Physics & Astronomy, Calvin University

Jason Smolinski, Ph.D., Dr., Physics & Astronomy, Calvin University

Control of Residual Stress in Powder Bed Fusion for Space Manufacturing

Kip Nieman, B.S. in chemical engineering, PhD student, Dept. of Chemical Engineering and Materials Science, WSU

4:00pm – 4:05pm

Closing Comments (Great Hall)

4:05pm

Adjourn (Great Hall)