



2023 Space Weather Workshop Agenda

[Space Weather Workshop Posters](#)

(Hosted by the University Corporation for Atmospheric Research)

Times in MDT

Monday, April 17 - Pre-Workshop Events

- | | |
|---------------------------|--|
| 8:00 AM - 5:00 PM | Space Weather Advisory Group (SWAG) Meeting
Location: Pearl St. Ballroom RIGHT “East-West” |
| 8:00 AM - 5:00 PM | NASA Space Environments Technical Discipline Team Meeting (TDT) (by invitation)
Location: “Foothills” Meeting Room |
| 8:00 AM - 10:00 AM | Coordination Group for Meteorological Satellites (CGMS) Data Access Meeting
Location: Pearl St Ballroom LEFT “Walnut” |
| 8:00 AM - 10:00 AM | US Space Force (USSF) Space Domain Awareness (SDA) Environmental Toolkit for Defense (SET4D) Meeting (by invitation)
Location: “Royal Arch” Meeting Room |
| 10:00 AM - 1:00 PM | International Space Environment Services (ISES) Meeting Part 1 (by invitation only. Part 2 to be held Friday April 21)
Location: Pearl St Ballroom LEFT “Walnut” |
| 1:00 PM - 5:00 PM | Space Weather Prediction Center (SWPC) User Engagement for Satellite Environment Meeting
Location: Pearl St Ballroom CENTER “Mall” |

Introduction

Tzu-Wei Fang, NOAA SWPC

Space Weather 101

Shawn Dahl, NOAA SWPC

Impact of Space Weather on Thermosphere Density

Tim Fuller-Rowell, CU CIRES/SWPC

Tzu-Wei Fang, NOAA SWPC

12:00 AM - 2:00 PM

Air Force Data Assimilative Photospheric Flux Transport (ADAPT) model and AF SIFT (Solar Indices Forecasting Tool) Meeting

Location: “Royal Arch” Meeting Room

1:00 PM - 3:00 PM

User Readiness for NOAA Program of Record (POR) Missions Meeting

Location: Pearl St Ballroom LEFT “Walnut”

Opening Remarks and Welcome

Jacob Inskeep, NOAA/NESDIS

Space Weather Follow On (SWFO) Program: Introduction

Dimitrios Vassiliadis, NOAA/NESDIS

SWPC SWFO User Readiness

Steven Hill, NOAA SWPC

SWFO - National Centers for Environmental Information

William Rowland, NOAA/NCEI

GOES-R Program Role for Space Wx Products

Matthew Seybold, NOAA/NESDIS

COSMIC-2 Data Products

Paul Straus, Aerospace Corporation

3:00 PM - 5:00 PM

Student Program

Location: “Royal Arch” Meeting Room

Organizers: Kaitlin Doublestein (University of Michigan)

Bhagyashree Vijay Waghule (University of Colorado)

Space Weather Policy - Building the Nation’s Resilience Against Space Weather Storms

Jinni Meehan, NWS HQ

Bill Murtagh, NOAA SWPC

NOAA Space Weather Support for Human Spaceflight

Bill Murtagh, NOAA SWPC

5:30 PM - 7:30 PM

Networking Session for Space Weather Workshop Participants

Location: NCAR Mesa Lab – Limited seating Bus Provided from/to Hotel – Please plan accordingly.

Tuesday, April 18

Location: Pearl St. Ballroom

- 8:30 AM** **[Opening Remarks and Welcome](#)**
Bill Murtagh, NOAA SWPC
- 8:40 AM - 9:35 AM** **[Building National Resilience for Space Weather Storms](#)**
Co-Chairs: Bill Murtagh, NOAA SWPC
 Jinni Meehan, NWS HQ
- 8:40 AM - 8:50 AM** **[Operations Perspective from the NOAA Space Weather Prediction Center](#)**
Clinton Wallace, NOAA SWPC
- 8:50 AM - 9:00 AM** **National Security Perspective from the USAF 557th Weather Wing**
Colonel Bradley Stebbins, 557th SpWoc
- 9:00 AM - 9:10 AM** **Safeguarding the Nation's Critical Infrastructure - Perspectives from the DHS
Cybersecurity and Infrastructure Security Agency (CISA)**
James Platt, CISA/DHS
- 9:10 AM - 9:20 AM** **[Space Weather Advisory Group \(SWAG\) Recommendations and Perspectives](#)**
Tammy Dickinson, Science Matters Consulting
- 9:20 AM - 9:35 AM** **Q&A**
- 9:35 AM - 10:35 AM** **Break and Poster Session: Solar and Interplanetary Research and Applications**
- 10:35 AM - 11:50 AM** **[Space Weather Committees: Roles, Coordination, and Communication](#)**
Co-Chairs: Jinni Meehan, NWS HQ
 Genevieve Fisher, NASA HQ
- 10:40 AM - 10:48 AM** **[Space Weather Advisory Group](#)**
Tammy Dickinson, Science Matters Consulting
- 10:48 AM - 10:56 AM** **[National Academy of Sciences \(NAS\) Space Weather Roundtable](#)**
Geoff Crowley, Orion Space Solutions
- 10:56 AM - 11:04 AM** **[Heliophysics Decadal Survey](#)**
Stephen Fuselier, SwRI
- 11:04 AM - 11:12 AM** **[Heliophysics Decadal - Space Weather Panel](#)**
Christina Cohen, Caltech
- 11:12 AM - 11:20 AM** **[NASA Space Weather Council](#)**
Nicole Duncan, Ball Aerospace
- 11:20 AM - 11:50 AM** **Panel & Audience Discussion**
- 11:50 AM - 1:15 PM** **Lunch**

- 12:30 PM - 2:30 PM** **SWPC Tour (for those pre-registered for the tour)**
- 1:15 PM - 2:30 PM** **Space Traffic Coordination and Space Situational Awareness**
Co-Chairs: Janet Green, Space Hazards Applications
Erin Lynch, NOAA NESDIS
- 1:20 PM - 1:28 PM** **Advances in Neutral Density Forecasting**
Tzu-Wei Fang, NOAA SWPC
- 1:28 PM - 1:36 PM** **Commercial GEO Satellite Tracking**
Marcus Bever, ExoAnalytic Solutions
- 1:36 PM - 1:44 PM** **Dragster Density Modeling Performance**
Geoff Crowley, Orion Space Solutions
- 1:44 PM - 1:52 PM** **The Impact of R2O Data Pipelines on Satellite Drag Analysis**
Michael Contreras, Ensemble
- 1:52 PM - 2:00 PM** **Observing and Modeling the LEO Satellite Drag Environment**
Eric Sutton, Space Weather Technology, Research, and Education Center, CU
- 2:00 PM - 2:08 PM** **Geospace Dynamics Constellation**
Katherine Garcia-Sage, NASA Goddard Space Flight Center
- 2:08 PM - 2:30 PM** **Q&A**
- 2:30 PM - 2:45 PM** **Special Presentation on NOAA Space Weather Observation Program**
Elsayed Talaat, NOAA/NESDIS
- 2:45 PM - 3:45 PM** **Break and Poster Session: Solar and Interplanetary Research and Applications**
- 3:45 PM - 5:00 PM** **Space Weather Support for Human Exploration**
Co-Chairs: Carina Alden, NASA GSFC (M2M)
Mike Cook, Mitre
- 3:50 PM - 3:58 PM** **Artemis 1 - Mission Updates**
Janet Barzilla, NASA/SRAG, JSC
- 3:58 PM - 4:06 PM** **Operational Space Weather Support for Human Spaceflight**
Rob Steenburgh, Monty Spencer, NOAA SWPC
- 4:06 PM - 4:14 PM** **Developments in Support of Human Exploration Missions**
Yarieska Collado-Vega, M2M Team, NASA GSFC
- 4:14 PM - 4:22 PM** **Validation of the UMASEP Solar Radiation Storm Model in the Space Weather Storm Model Proving Ground**
Kim Moreland, CU CIRES/SWPC
- 4:22 PM - 4:30 PM** **NASA's HERMES and ESA's ERSA**
Bill Paterson, HERMES, ERSA

- 4:30 PM - 4:38 PM** [Moon-to-Mars \(M2M\) Architecture, Science and Application Objectives](#)
Jamie Favors, NASA HQ
- 4:38 PM - 5:00 PM** **Q&A**
- 5:00 PM - 5:30 PM** **Poster Lightning Talks: Solar and Interplanetary Research and Applications**
Chair: Holly Gilbert, NCAR High Altitude Observatory (HAO)
- [Resolving CME Characteristics with Polarized White Light Data](#)
 Matthew West, SwRI
- [Concept for Real-Time Solar Flare Predictions Using Early Flare Signatures](#)
 Juliana Vievering, JHU/APL
- [Ensemble Modeling to Reconstruct Remote and In-Situ CME Observations](#)
 Nishtha Sachdeva, University of Michigan
- [New Space Weather Data Mashups: Collections and Correlations Using SWx](#)
[TREC Space Weather Data Portal Catalog](#)
 Jenny Knuth, CU Boulder
- [Solar Corona from Solo/Metis and SOHO/LASCO: Observations and](#)
[Comparison with MAS Code Simulations](#)
 Francesco Frascella, University of Turin/National Institute of Astrophysics
- [Does "Precursor Activity" Really Foretell Solar Energetic Events?](#)
 Karin Dissauer, NWSA
- [Towards Advanced SEP Forecasting with the PARA-SOL Model](#)
 Alexandr Afanasiev, University of Turku (Finland)
- 6:00 PM - 8:00 PM** **17th Annual NOAA-American Commercial Space Weather Association**
(ACSWA) Summit (invitation only)

Wednesday, April 19 Location: Pearl St. Ballroom

- 8:15 AM - 8:30 AM** [Today's Space Weather Forecast + Q&A](#)
Shawn Dahl, NOAA SWPC
- 8:30 AM - 8:45 AM** **Special Presentation: View from the National Security Council at the White House**
Caitlin Durkovich, National Security Council, Executive Office of the President
- 8:45 AM - 10:05 AM** [Growing the Space Weather Enterprise: Resilience through Partnerships](#)
Co-Chairs: Tammy Dickinson, Science Matters Consulting
 Maj. Austin Gibbons, USAF 557th Weather Wing
- 8:50 AM - 9:00 AM** [NOAA](#)
Ken Graham, Director, NOAA/NWS
- 9:00 AM - 9:10 AM** [NASA](#)
Peg Luce, Acting Director, NASA Heliophysics Division, NASA HQ

- 9:10 AM - 9:20 AM** [NSF](#)
Anne Johansen, Director, Division of Atmospheric and Geospace Sciences, and
Mangala Sharma, Program Director, Geospace Section, NSF
- 9:20 AM - 9:30 AM** [USAF](#)
Lt Col Omar Nava, Chief, Space Weather and Environmental EM Effects,
HQ USAF/A3WX
- 9:30 AM - 9:40 AM** [American Commercial Space Weather Association\) \(ACSWA - Commercial
Sector Perspective on National Efforts](#)
Kent Tobiska, ACSWA and President and Chief Scientist Space Environment
Technologies (SET)
- 9:40 AM - 9:50 AM** [Evolving Academic Partnerships?](#)
Delores Knipp, Research Professor, University of Colorado, Boulder, Aerospace
Engineering Sciences
- 9:50 AM - 10:05 AM** **Q&A**
- 10:05 AM - 11:00 AM** **Break and Poster Session: Solar and Interplanetary Research and
Applications; Ionosphere and Thermosphere Research and Applications;
Aviation Radiation Research and Applications**
- 11:00 AM - 12:05 PM** [Space Weather: Meeting the Needs of the Energy Sector](#)
Co-chairs: Josh Rigler, USGS
Brent Gordon, NOAA SWPC
- 11:05 AM - 11:13 AM** [Latest Developments at the North American Electric Reliability Corporation](#)
Mark Olson, North American Electric Reliability Corporation
- 11:13 AM - 11:21 AM** [Monitoring and Assessing GICs in Alberta’s High Voltage Network](#)
Hannah Parry, University of Alberta
- 11:21 AM - 11:29 AM** [US-Canada Geoelectric Field Model](#)
Chris Balch, NOAA SWPC
- 11:29 AM - 11:37 AM** [NOAA/CPI CRADA to Evaluate Commercial Magnetometer Measurements](#)
Jenn Gannon, Computational Physics, Inc.
- 11:37 AM - 11:45 AM** [System Model Implementation and Validation](#)
Gary Kobet, Tennessee Valley Authority
- 11:45 AM - 12:05 PM** **Q&A**
- 12:05 AM - 1:30 PM** **Lunch and Other Activities:**
- ACSWA Lunch - invitation only**
Location: “Baseline” Boardroom
- Student Program Lunch on Diversity and Workforce Development**
Location: “Royal Arch” Meeting Room

Organizers: Kaitlin Doublestein, University of Michigan
Bhagyashree Vijay Waghule, University of Colorado
Discussion with Jinni Meehan (NOAA NWS), Fran Bagenal (University of Colorado); Kristen Aponte and Samaiyah Farid (NCAR); and Mike Liemohn (University of Michigan).

- 1:30 PM - 2:30 PM** **Space Weather: Meeting the Needs of the Global Aviation Community**
Co-Chairs: Hazel Bain, CU CIRES/SWPC
Samantha Carlson, Federal Aviation Agency (FAA)
- 1:35 PM - 1:43 PM** **Aviation Testbed Experiment**
Michele Cash, NOAA SWPC
- 1:43 PM - 1:51 PM** **Space Weather and American Airlines**
Rondeau Flynn, American Airlines
- 1:51 PM - 1:59 PM** **United Airlines: Operating Procedures during Space Weather Storms**
Nathan Polderman, United Airlines
- 1:59 PM - 2:07 PM** **Optimizing Space Weather Advisory Issuance for Aviation: Guidance for Space Weather Centers**
Judith de Patoul, Royal Observatory of Belgium
- 2:07 PM - 2:15 PM** **Space Weather Services for ICAO – Recent Developments and Future Improvements**
Krista Hammond, UK Met Office
- 2:15 PM - 2:30 PM** **Q&A**
- 2:30 PM - 3:15 PM** **Break and Poster Session: Solar and Interplanetary Research and Applications; Ionosphere and Thermosphere Research and Applications; Aviation Radiation Research and Applications**
- 3:15 PM - 3:55 PM** **Observing and Modeling the Ionosphere: Supporting Communications and Navigation**
Co-Chairs: Tim Fuller-Rowell, CU CIRES/SWPC
Janet Machol, CU CIRES/SWPC
- 3:20 PM - 3:28 PM** **Progress and Challenges of Ionospheric Remote Sensing Using GNSS Radio Occultation**
Paul Straus, Aerospace Corporation
- 3:28 PM - 3:36 PM** **The Observation System Simulation Experiment Tool (OSSET) for Global Ionospheric Electron Density**
Joe Hughes, Orion Space Solutions
- 3:36 PM - 3:44 PM** **Assessing the Impact of RO Constellation Data on Global Ionospheric Monitoring Through Observing System Simulation Experiments**
Tomoko Matsuo, University of Colorado Aerospace Engineering Sciences
- 3:44 PM - 3:55 PM** **Q&A**

- 3:55 PM - 4:30 PM** **Space Weather Workforce Development**
Co-Chairs: Lisa Winter, NSF Geospace Section
Antti Pulkkinen, NASA GSFC
- 4:00 PM - 4:10 PM** **Enhancing Demographics and Career Pathways of the Space Physics Workforce in the US**
Fran Bagenal, University of Colorado
- 4:10 PM - 4:20 PM** **Evolving the Space Weather Workforce to be more Diverse and Inclusive**
Kristen Aponte and Samiyah Farid, NCAR
- 4:20 PM - 4:30 PM** **Q&A**
- 4:30 PM - 5:00 PM** **Poster Lightning Talks: Ionosphere and Thermosphere Research and Applications**
Chair: Astrid Maute CU CIRES/SWPC
- Analysis of Navigation Solution Parameters Affected by High-Latitude Ionospheric Scintillation**
Genevieve Tang, United States Military Academy
- Evaluating Thermospheric Nowcast and Forecast Performance of an Assimilative Density Specification Tool**
Marcin Pilinski, CU Boulder, Laboratory for Atmospheric and Space Physics
- Modeling the Thermospheric Response to Solar and Geomagnetic Drivers during the Feb 2022 Starlink Incident**
Joshua Pettit, GMU/NASA GSFC
- Development of Forecast Model for Ionospheric Scintillation in Canadian High Latitudes**
Lidia Nikitina, Natural Resources Canada
- Real-Time Operational Measurements of the Thermospheric State: Recent Advances and Future Possibilities**
Edward Thiemann, LASP, University of Colorado
- Low-Cost In-Situ Simultaneous Multi-Point Plasma Density Observations**
Aroh Barjatya, Embry-Riddle Aeronautical University, Space and Atmospheric Instrumentation Lab
- 5:00 PM - 5:30 PM** **Special Presentation: The Mystery of STEVE - Snapshots of Science**
Co-Chairs: Rodney Viereck, CU CIRES/SWPC
Bill Murtagh, NOAA SWPC
- 5:00 PM - 5:30 PM** **The Science of Steve and STEVE at Starland - Photographing STEVE**
Eric Donovan, University of Calgary
Neil Zeller, Neil Zeller Photography
- 7:00 PM - 9:00 PM** **Banquet and after-dinner presentation: Achieving the Amazing: The James Webb Space Telescope**
Speaker: Erin Wolf, Ball Aerospace

Thursday, April 20

Location: Pearl St. Ballroom

- 8:30 AM - 9:40 AM** **Space Weather Research to Operations to Research (R2O2R) Applications - Research Opportunities in Space and Earth Sciences (ROSES) Opportunities**
Co-Chairs: Jim Spann, NASA HQ
 Andy Marble, CU CIRES/SWPC
- 8:35 AM - 8:43 AM** **R2O2R at SWPC**
Eric Adamson, NOAA SWPC
- 8:43 AM - 8:51 AM** **R2O2R at NASA**
Kelly Korreck, NASA HQ
- 8:51 AM - 8:59 AM** **R2O2R at the Community Coordinated Modeling Center (CCMC)**
Masha Kuznetsova, CCMC/NASA GSFC
- 8:59 AM - 9:07 AM** **R2O2R in DoD**
Bryan Davis, U.S. Space Force
- 9:07 AM - 9:15 AM** **Development of Far-Side Magnetic Flux Measurements Using GONG Data**
Shea Hess Weber, Stanford University
- 9:15 AM - 9:23 AM** **WSA-Optimized Technology Readiness Level upgrade**
Humberto Godinez, Los Alamos National Laboratory
- 9:23 AM - 9:40 AM** **Q&A**
- 9:40 AM - 10:30 AM** **Break and Poster Session: Geospace/Magnetosphere Research and Applications; Space Weather Policy and General Space Weather Contributions**
- 10:30 AM - 11:45 AM** **NSF Advancing National Space Weather Expertise and Research toward Societal Resilience (ANSWERS Space Weather Projects)**
Co-Chairs: Mangala Sharma, NSF
 Michele Cash, NOAA SWPC
- 10:35 AM - 10:43 AM** **Impacts of Atmospheric Waves and Geomagnetic Disturbances on Quiet-time and Storm-time Space Weather**
Xian Lu, Clemson University
- 10:43 AM - 10:51 AM** **Prediction of Geoeffective Solar Eruptions, Geomagnetic Indices, and Thermospheric Density Using Machine Learning Methods & Impact on Satellite Drag**
Xiaoli Bai, Rutgers
- 10:51 AM - 10:59 AM** **Ion-Neutral Coupling in Geospace and its Impact on Space Weather**
Piyush Mehta, West Virginia University

- 10:59 AM - 11:07 AM** [Dynamics and Impacts of Electrons and Ions in the Earth's Magnetosphere-Ionosphere System](#)
Liang Wang, Princeton University
- 11:07 AM - 11:15 AM** [Understanding and Forecasting Solar Energetic Particles in the Inner Solar System and Earth's Magnetosphere](#)
Gang Li, University of Alabama, Huntsville
- 11:15 AM - 11:23 AM** [Solar Energetic Particles, Solar Neutrons, and a New Space Weather Facility in Hawaii](#)
James Ryan, University of New Hampshire
- 11:23 AM - 11:31 AM** [The Satellite Surface Charging Observatory for Prediction, Understanding, Learning, and Industry](#)
Adam Kellerman, UCLA
- 11:31 AM - 11:45 AM** **Q&A**
- 11:45 AM - 12:00 PM** [Special Presentation: NASA Science Mission Directorate - Perspectives on Space Weather](#)
Nicky Fox, NASA HQ Science Mission Directorate
(presentation provided, but unable to attend)
- 12:00 PM - 1:30 PM** **Lunch**
- 12:30 PM - 2:30 PM** **SWPC Tour (for those pre-registered for the tour)**
- 1:30 PM - 1:45 PM** [Special Presentation on a National Space Weather Exercise](#)
Dipak Srinivasan, JHU/APL
- 1:45 PM - 2:00 PM** **Special Presentation from the Department of Commerce**
Don Graves, Deputy Secretary of Commerce with introduction by
Michael Morgan, Assistant Secretary of Commerce
- 2:00 PM - 3:00 PM** **Space Weather: New and Future Observations To Advance Understanding and Forecasting**

Co-Chairs: Mpho Tshisaphungo, South African National Space Agency (SANSA)
Simon Machin, UK MetOffice
- 2:05 PM - 2:13 PM** [Space Weather Activities and Data at Los Alamos National Laboratory](#)
Mike Henderson, Los Alamos National Laboratory
- 2:13 PM - 2:21 PM** [UK Space Agency Bi-lateral Science & Exploration Programme](#)
Caroline Harper, UK Space Agency
- 2:21 PM - 2:29 PM** [ESA Space Weather Missions for Operational Applications](#)
Juha-Pekka Luntama, ESA Space Safety Programme Office
- 2:29 PM - 2:37 PM** [CGMS Efforts to Enable Spacecraft Anomaly Correlation with Space Weather Activity](#)

Andrew Monham, EUMETSAT

- 2:37 PM - 2:55 PM** **Q&A**
- 2:55 PM - 3:40 PM** **Break and Poster Session: Geospace/Magnetosphere Research and Applications; Space Weather Policy and General Space Weather Contributions**
- 3:40 PM - 4:30 PM** **Advances in Space Weather Modeling and Services - 1**
Co-Chairs: Steven Hill, NOAA SWPC
Bhagyashree Vijay Waghule, University of Colorado
- 3:45 PM - 3:53 PM** **Submarine Cable Impacts**
Shibaji Chakraborty, Center for Space Science and Engineering Research, Virginia Tech
- 3:53 PM - 4:01 PM** **Near-real-time Coronal Mass Ejection Alerts as part of an Early Warning Forecasting System for Solar Energetic Particle (SEP) Events**
Joan Burkepile, NCAR High Altitude Observatory (HAO)
- 4:01 PM - 4:09 PM** **Timeline of Machine Learning in Space Weather: Past, Present and Future**
Enrico Camporeale, CU CIRES/SWPC
- 4:09 PM - 4:17 PM** **Comparison of Drag/Density Models**
Margaret Chen, Aerospace Corporation
- 4:17 PM - 4:30 PM** **Q&A**
- 4:30 PM - 5:30 PM** **International Space Weather Contributions**
Co-Chairs: Terry Onsager, NOAA SWPC
Mario Bisi, UK Research and Innovation (UKRI) Science and Technology Facilities Council (STFC)
- 4:35 PM - 4:45 PM** **UK Royal Air Force**
Bryn Jones, UK SpOC, Royal Air Force
- 4:45 PM - 4:55 PM** **Australia Bureau of Meteorology (BOM)**
James Lannan, BOM
- 4:55 PM - 5:05 PM** **South African National Space Agency (SANSA)**
Lee-Anne McKinnell, SANSA
- 5:05 PM - 5:15 PM** **Latin American Space Weather Coordination**
Clezio di Nardin, National Institute for Space Research (INPE), Brazil
- 5:15 PM - 5:30 PM** **Q&A**
- 5:30 PM - 6:00 PM** **Poster Lightning Talks: Geospace/Magnetosphere Research and Applications**
Chair: Dimitrios Vassiliadis, NOAA NESDIS

Prediction of Adverse effects of Geomagnetic Storms and Energetic Radiation (PAGER)

Yuri Shprits, GFZ German Research Centre for Geosciences, DE

Muon Flux Variation in Real-time and its Correlation with Space Weather Activity

Arfa Mubashir, Georgia State University

New Developments with Kp and The New Hourly and Half-Hourly, Kp-Like Geomagnetic Index Hpo (Hp60, Hp30)

Jürgen Matzka, GFZ German Research Center for Geosciences, Germany

Stormtime Geomagnetic Disturbance Events - Impact of High-Resolution Grid and Adaptive Kinetic Physics

Timothy Keebler, University of Michigan

Impact of Single Fluid and Multifluid MHD on GMD Forecasting: An Inner Boundary Condition Sensitivity Study

Kaitlin Doublestein, Department of Climate and Space Science and Engineering, University of Michigan

Observations of Relativistic Electron Wave-Particle Interactions at Geostationary Orbit by the New NOAA GOES-16, GOES-17 and GOES-18 Satellites

Aspen Davis, University of Colorado/CIRES/NOAA/NCEI

Localized Geomagnetic Disturbance Forecasting: Evaluating Physics and Numerics in Global Models

El Vandegriff, University of Texas at Arlington

Testing the Liouville Theorem Based SEP Flux Mapping Method with Multiple Cutoff Models at High Altitudes and Off the Magnetic Equator

Shawn Young, Air Force Research Laboratory

Friday, April 21

Location: Pearl St. Ballroom

8:30 AM - 10:00 AM

Advances in Space Weather Modeling, Observations and Services - 2

Co-Chairs: Dan Welling, University of Michigan

Frank Centinello, NOAA SWPC and NOAA Aircraft Operations Center

8:35 AM - 8:45 AM

Improving Operational CME Forecasting

Dusan Odstreil, George Mason University

8:45 AM - 8:55 AM

Real-time Solar Wind Predictions with Ensemble MHD Simulations Combined with Data Assimilation

Zhenguang Huang, University of Michigan

8:55 AM - 9:05 AM

Automated Radiation Measurements for Aerospace Safety Aeronautical Regional Geospatial Observer System (ARMAS ARGOS)

Justin Bailey, Space Environment Technologies (SET)

9:05 AM - 9:15 AM

Measuring and Modelling Solar and Galactic Cosmic Radiation in the Atmosphere for Space Weather Applications

Eric Benton, Oklahoma State University

- 9:15 AM - 9:25 AM** [Modeling Interplanetary Evolution of CMEs with Internal Magnetic Structure with GAMERA](#)
Elena Provornikova, JHU/APL
- 9:25 AM - 9:35 AM** [National Solar Observatory and Next Generation GONG](#)
Carrie Black, NSF Astronomical Sciences Division
- 9:35 AM - 10:00 AM** **Q&A**
- 10:00 AM - 10:30 AM** **Break**
- 10:30 AM - 11:20 AM** [Advances in Space Weather Modeling, Observations and Services - 3](#)
Co-Chairs: Howard Singer, NOAA SWPC
Mark Miesch, CU CIRES/SWPC
- 10:35 AM - 10:45 AM** [Connecting Space Weather and Power Flow Modeling to Assess Hazards](#)
Steve Morley, Los Alamos National Laboratory
- 10:45 AM - 10:55 AM** [Center for Geospace Storms \(CGS\): Importance of Mesoscale Processes in Space Weather Models](#)
Mike Wiltberger, NCAR/HAO/CGS
- 10:55 AM - 11:05 AM** [Space Weather Modeling from Global to Kinetic Scales](#)
Tuija Pulkkinen, University of Michigan
- 11:05 AM - 11:15 AM** **Q&A**
- 11:15 AM - 11:50 AM** [Solar Cycle 25](#)
- 11:20 AM - 11:30 AM** [Solar Cycle Prediction](#)
Scott McIntosh, NCAR
- 11:30 AM - 11:50 AM** **Q&A and Solar Cycle Discussion**
- [Meeting Conclusion](#)
- 11:50 AM - 12:00 PM** [Closing Remarks](#)
Howard Singer, NOAA SWPC

(See next page for Friday Side Meetings)

Friday Side Meetings:

- 1:00 PM - 3:00 PM** **Coordination Group for Meteorological Satellites (CGMS) Data Access Meeting**
Location: “Foothills” Meeting Room
- 3:00 PM - 5:00 PM** **International Space Environment Services (ISES) Meeting Part 2 (by invitation only)**
Location: “Foothills” Meeting Room