

THEMIS/ARTEMIS SWT: Saturday, Dec 16, 2023 8:30am-5pm

Part 1: Mission planning and operations outlook. Products, processing, upcoming opportunities, strategy.

8:30-8:45: Intro (Vassilis)

8:45-9:10: NASA HQ view and Q&A (J. Leisner) [via Zoom](#)

9:10-9:30: Themis/Artemis mission status and future plans (Vassilis)

9:30-9:35: SPEDAS and pySPEDAS (Vassilis)

9:35-9:40: Orbits (J. Marchese)

9:40-9:45: Operations (J. Thorsness) [via Zoom](#)

9:45-9:50: FGM (F. Plaschke) [via Zoom](#)

9:50-9:55: Alexander Drozdov (UCLA EPSS) New Magnetometer Data for Space Physics Research from Seismological Networks, available via PySPEDAS [via Zoom](#)

10:00-10:05: Philippe Escoubet (ESA) Cluster/SMILE Update

10:05-10:10 Xinlin Li (CU/LASP) Introducing CIRBE (Colorado Inner Radiation Belt Experiment), launched on 15 April 2023, initial results and potential coordinated study with THEMIS

10:10-10:15: Ian Mann (U. Alberta) CARISM GMAGs and Space Environment Canada

10:15-10:25: ASI-GBO (E. Donovan)

Break (10:25-10:35)

James Edmond (University of New Hampshire) Clustering of the Global Magnetosphere (Machine Learning)

David Sibeck (NASA/GSFC) Sunward flows in the dayside foreshock and magnetosheath

Terry Liu (UCLA EPSS) Compressional boundaries driven by the interaction between foreshock ions and discontinuities

Kun Zhang (UCLA EPSS) The interaction between the solar wind discontinuities and the Earth's bow shock: ARTEMIS observations

Florian Koller (Univ. of Graz, Austria) Investigating Plasma Stability within Solar Wind Structures and Jets in the dayside terrestrial Magnetosheath [via Zoom](#)

Xin An (UCLA EPSS) Cross-scale energy coupling from low-frequency electromagnetic waves to high-frequency electrostatic waves in the solar wind

Toshi Nishimura (Boston University) THEMIS observations of quiet-time STEVE events

Xiaofei Shi (UCLA EPSS) Substorm magnetotail dynamics: ELFEN, THEMIS, and MMS vs. empirical magnetic field model

Sun-Hee Lee (CUA/NASA GSFC) Cross-comparison of observations with the prediction of global hybrid simulations for the multiple IMF discontinuities impacting the magnetosphere [via Zoom](#)

Christine Gabrielse (Aerospace Corp.) Precipitation on Meso-Scales During the 2013 St Patrick's Day Storm

Chen Shi (UCLA EPSS) Acceleration of polytropic solar wind: Parker Solar Probe observation and one-dimensional model

LUNCH (12:15-1:30)

Lucas Liuzzo (UCB SSL) Unrestricted solar energetic particle access to the Moon while within the terrestrial magnetotail

Shaosui Xu (UCB SSL) Lunar surface potential in the magnetotail lobes inferred from ARTEMIS observations

Mohammad Barani (UCB SSL) Observation of the Ionospheric Heavy Ions at Magnetotail Using ARTEMIS

Rhyan Sawyer (Univ. of Iowa) Near Lunar Surface Electron Heating Over a Weakly Magnetized Region

David Tonoian (UT Dallas) THEMIS observations of Very Oblique Electromagnetic Ion Cyclotron Waves

Sergei Kamaletdinov (UCLA EPSS) Plasma Characteristics of Thin Current Sheets in the Magnetotail at Lunar Distances

Seth Dorfman (Space Science Institute) Polarization of ULF Waves in the Earth's Ion Foreshock at Lunar Distance

Michael Hartinger (Space Science Institute / UCLA EPSS) Tentative Talk Title- Heliophysics Audified: Resonances in Plasmas

Dominic Hernandez (UCLA EPSS) Parametric Survey of Beam-Driven Excitation of Electron Acoustic Waves and Electron Cyclotron Harmonic Waves in Earth's Magnetotail

Xiaoyan Zhou (UCLA EPSS) Auroral Events in Winter 2022 - Information from Four Wavelengths

Ning Kang (UCLA AOS) Modelling the global contribution of relativistic electron loss due to chorus wave induced microbursts

Maria Usanova (CU/LASP) Particle energization by high-amplitude turbulent electric fields [via Zoom](#)

Niklas Grimmich (TU Braunschweig) Studying Extreme Magnetopause Locations and their origins

Break (3:00-3:10)

Li-Jen Chen (NASA GSFC) The 2023 April CME taking the magnetosphere into rare states: Perspectives from THEMIS/ARTEMIS and MMS

Yangyang Shen (UCLA EPSS) Electron precipitation driven by time domain structures from the plasma sheet

Sina Sadeghzadeh (Rice Univ.) RCM simulations of bubble injections into the inner and middle plasma sheets as compared to THEMIS observations

Rachel Rice (UMD/GSFC) Magnetopause Boundary Layers during Low Mach Number Solar Wind

Abhinav Prasad (Boston Univ.) Whistler Mode Wave Generation During Interplanetary Shocks in Earth's Lunar Plasma Environment [via Zoom](#)

Sophie Kadan (U. Penn.) Variation of whistler-mode wave characteristics along magnetic field lines: comparison of near-equatorial THEMIS and middle-latitude ERG observations