Thursday

GEM 2023 GEM Summer Workshop
San Diego, June 11-16
Geospace Environment Modeling

Poster Id	Presenter Name	Poster Title
Global System Modeling (GSM)		
1	Anthony Sciola	CGS: First look at the new MAGE inner magnetosphere model
2	Michael Wiltberger	CGS: Community Utilization of Multiscale Atmosphere Geospace Environment Model Results
3	Harry Arnold	CGS: Data Mining Inspired Resistivity in Global MHD Substorm Simulations
4	Kareem Sorathia	CGS: Multiscale Magnetosphere-Ionosphere Coupling During Stormtime: A Case Study of the Dawnside Current Wedge
5	Xueling Shi	CGS: Causes of intense geomagnetic and geoelectric field perturbations: observations and MAGE simulations
6	Slava Merkin	CGS: A NASA DRIVE Science Center Transforming the Understanding and Predictability of Space Weather
7	Raman Mukundan	A Regional dB/dt Forecast Using Deep Learning and Spherical Elementary Current Systems
8	Erika Hathaway	An Extended Metric Analysis of SWMF Ionosphere Models on Estimating FACs
9	Hsinju Chen	Impact of Plasma Mass Density on the Magnetosphere Configuration: A Multifluid Approach to Determining N+/O+ Composition in the Near-Earth Region
10	Raymond Walker	Ion Dynamics from Magnetotail Reconnection to the Inner Magnetosphere
11	Austin Smith	Juno Data -GAMERA Model Comparisons of Jupiter's Magnetosphere
12	El Vandegriff	Localized Geomagnetic Disturbance Forecasting: Evaluating Physics and Numerics in Global Models
13	Konstantinos Horaites	Magnetospheric Response to a Pressure Pulse in a Three-dimensional Hybrid-Vlasov Simulation
14	Timothy Keebler	PIC Reconnection vs. MHD Numerical Reconnection: Comparison During Extreme Events
15	Tre'Shunda James	Quantifying the Ability of Magnetohydrodynamic Models to Reproduce Observed Ionospheric Current Magnitudes
16	Austin Brenner	Quantifying the Dungey Cycle at Earth's Magnetosphere
17	Muhammad Bilal Khan	Statistical study of magnetic reconnection in two-dimensional MHD turbulence
18	Liutauras Rusaitis	The Formation of the Ring Current in the Multi-Scale Simulation
19	Qusai Al Shidi	Uncertainties in Geomagnetic Indices due to Solar Wind Propagation
Magnetosphere - Ionosphere Coupling (MIC)		
20	Robert Albarran	CGS: Multi-Fluid Modeling of Ionospheric Outflows with the Multiscale Atmosphere-Geospace Environment
21	Wenbin Wang	CGS: Effects of subauroral polarization streames (SAPS) on global thermosphere and ionosphere
22	William Lotko	CGS: Poleward propagating Alfvénic disturbances stimulated by flux transfer events
23	Dong Lin	CGS: Dragon King: The Auroral Precipitation Module in the Multiscale Atmosphere-Geospace Environment (MAGE) Model
93	Mei-Yun Lin	Unraveling the Plasma Composition in the Earth's Polar Wind: The Critical Role of Heavy Ions
53	Shanshan Bao	CGS: Post-sunset ionospheric electron density depletion from low to high latitudes: MAGE simulation of Sept 2017 Storm
Magnetotail and Plasma Sheet (MPS)		
30	Laura Fryer	3D GUMICS simulations of northward IMF magnetotail structure
25	Jeremy Dargent	Cold ionospheric ion in magnetotail magnetic reconnection: Energy budgets
26	Tyler Metivier	Contrasting Dipolarization Front Structure and Dynamics with MMS
27	Elvis Fusina	Effects of O+ ions on Magnetotail reconnection
29	Alexandra Volkova	Numerical study of ion and electron heating in asymmetric reconnection
24	Harry Arnold	PIC simulations of overstretched ion-scale current sheets in the magnetotail
31	Xiantong Wang	Plasma heating and acceleration in Bursty Bulk Flows: MHD with Embedded Particle-in-Cell simulation
32	Young Dae Yoon	Relaxation process of disequilibrated current sheets viewed through phase space
40	Alexander Lukin	Rising and falling tone chorus waves in the magnetotail: MMS survey
34	Sanjay Kumar	Statistical study of Earth's magnetotail during different phases of substorms
35	Krushna Chandra Barik	Statistics of energy transport in Earth's magnetotail: a MMS study
36	Anusree Devanandan	CGS: A Statistical Study of Regions of Enhanced Ion Temperatures in the Magnetotail in the TWINS Ion Temperature Maps
37	Joel Tibbetts	CGS: Simulated Energetic Neutral Atom Imaging of a Modeled Magnetosphere
33	Sanjay Chepuri	Testing Adiabatic Models of Energetic Electron Acceleration at Dipolarization Fronts
41	Jeff Morgenthaler	The Io Input/Output observatory (IoIO): providing a comprehensive, long-term record of plasma flow in Jupiter's magnetosphere since 2017
42	Akhtar Ardakani	Understanding O+ Effects on Earth's Magnetotail Dynamics: Exploring Global, Meso, and Micro Scale Impacts
43	Jing Liao	Estimates of the Feed and Loss of H+ and O+ Ions Inside the Near-Earth Plasma Sheet
Solar Wind - Magnetosphere Interaction (SWMI)		

44	Kylie Sullivan	An Investigation into Far-Flank Reconnection at the Earth's Magnetopause
45	Hector Salinas	Analysis of Electric Current Structures in the Magnetosheath
46	Opal Issan	Bayesian Inference and Global Sensitivity Analysis for Ambient Solar Wind Forecasts
47	Anansa Keaton-Ashanti	Case studies of particle acceleration in magnetosheath turbulence behind quasi-parallel and oblique shocks
48	Nii-Boi Quartey	Crustal Field Inclusion of the Dawn-Dusk Asymmetry of the Mars Magnetotail Current Sheet
49	Kris Pritchard	Electron Diffusion Region Reconnection Rate: Absolute or Evolving Value?
50	Espen Fredrick	Determining the reliability of OMNI data to predict solar wind conditions at Earth
51	Cole Dorman	Development of Self-Calibrating Magneto-inductive Sensor for Spaceflight Constellations
52	Krishna Khanal	Dependence of the spatial extent of magnetopause reconnection on solar wind driving conditions
54	Alexander Lukin	Stochastic differential equations for wave-particle resonant interactions
55	Wei Zhang	Evolution of Mesoscale Convection in the Dayside Cusp
56	Terry Liu	Field-aligned anisotropy of magnetosheath ions and its contribution to foreshock ions
57	Jingxuan Li	Global survey of whistler mode waves in the Earth's magnetosheath using THEMIS observations
58	Luke Francis	Historical Overview and Outlook of Substorm Onset Problem
59	CHIH-PING WANG	Impact of an interplanetary shock on the polar-cap outflow: Cluster events
60	Simone Di Matteo	Inferred 3D Size Scales of Solar Wind Periodic Density Structures and Impact on Earth's Magnetosphere
61	Xi Lu	Interaction between the bow shock and a solar wind density hole
62	Neha Srivastava	Interaction of the Solar Wind tangential discontinuities with the Bow Shock : OpenGGCM Simulations
63	Mike Coughlan	Interpretable Forecasting of Ground Magnetic Perturbation Spikes at Mid-Latitude Stations
64	Pauline Marie Dredger	Investigating the effect of interhemispheric asymmetries on model prediction of magnetopause crossing by spacecraft
65	Jake Montgomery	Investigating the Occurrence of Kelvin-Helmholtz Instabilities at Jupiter's Dawn Magnetopause
66	Stephanie Colón Rodríguez	Ion Composition Study at Earth's Outer Magnetosphere: Wind Spacecraft Measurements
67	Hee-Eun Kim	Ions at the Transition Region of the Earth's Bow Shock Observed by MMS
68	Emily Owen McDougall	Magnetic Reconnection across Current Sheets as a Model for Discrepancies in Magnetosheath Energetic Ion Flux Using PVI
69	Weijie Sun	Mercury's magnetosphere under a CME impact and its comparisons with Earth's magnetosphere
70	Galina I Korotova	Multipoint observations of compressional Pc5 pulsations in the dawn side magnetosphere: A case study
71	Simon Wing	Multispacecraft observations of the simultaneous occurrence of magnetic reconnection at high and low latitudes during the passage of a solar wind rotational discontinuity embedded in the April 9-11, 2015 ICME
72	Connor	PRIME: Probabilistic Solar Wind Propagation
73	Kun Zhang	Probing the Foreshock Wave Boundary with Single Spacecraft Techniques
74	Haoming Liang	Scaling of the Asymmetric Magnetic Reconnection Rate with Out-of-Plane (Guide) Magnetic Field
75	Nicholas Jones	Shock-driven EMIC wave occurrences
76	Youra Shin	Small-scale Magnetic Flux Ropes in the Solar Wind and Their Effect on M-I Coupling Process
77	Xiaofei Shi	Electron resonant interactions with whistler-mode waves around the Earth's bow shock
78	Yu-Lun Liou	Statistical Study of the Energetic Electron Microinjections at the High-latitude Magnetosphere
79	Christian Lao	Evaluating the association of substorm onset identification methods
80	Tsige Atilaw	Storm-Time Magnetospheric Magnetic Dynamics
81	Chuanfei Dong	Ten-Moment Multifluid Modeling of the Dynamic Magnetospheres of Mercury, Earth, Uranus Psyche, and Ganymede
82	Kun Zhang	The Early-phase Growth of ULF Waves in the Ion Foreshock observed in a Hybrid-Vlasov Simulation
83	Matti Ala-Lahti	The impact of solar wind ULF fluctuations on space weather
84	Amy Rewoldt	Unambiguously Obtaining Reconnection Potential from Geoeffective Length
85	Dylan Conner	Venusian DC Electric Fields using PSP; A Look into Different Sources and their Errors
86	Anika Dujakovich	X-ray imaging of oxygen ions and ion outflow from the NICER mission
87	Dinesh Radhakrishnan	A Comparison of Magnetopause Characteristics at different stages of Kelvin Helmholtz Instabilities: A Preliminary Statistical Study
Other		
38	Adam Michael	CGS: Cross-Scale Modeling of Radiation Belt Variability in combined global MHD and Test Particle Simulations
39	Shin Ohtani	CGS: Storm & Substorm Current Systems
88	Steven Heuer	Calculating the reconnection rate for guide field reconnection using magnetic field gradients
89	Juan Munoz Jr	Comparing Electron Conics at Earth and Jupiter Utilizing Juno Data From Science Orbits 01-44
90	Jiashu	ELFIN's fluxgate magnetometer data and calibration
91	Alex Hoffmann	Enabling Boomless CubeSat Magnetic Field Measurements with the Quad-Mag Magnetometer and an Improved Underdetermined Blind Source Separation Algorithm

92	Alain Brizard	Hamiltonian Formulations of Quasilinear Theory for Magnetized Plasmas
93	Mei-Yun Lin	Unraveling the Plasma Composition in the Earth's Polar Wind: The Critical Role of Heavy Ions
94	Dominic Payne	Influence of Embedded Current Sheets on the Timing of Reconnection Onset
95	Justin Bowman	LIEFSI: Delving into Space Electric Fields in the Lab
96	Jaya Joseph	Occurrence of ECH waves in Jovian magnetosphere: comparison with Earth and Saturn
97	Austin Cohen	A New Magnetometer Deployment Vessel Designed to Meet Alaska Specific Challenges
98	Abhiraj Majumder	Testing the limits of heavy ion outflow
99	Keith Vidal	The propagation and coherency of whistler mode chorus waves to higher magnetic latitudes
100	Kristina Collins	Toward Exploring the Magnetosphere With Sonification, Mixed Reality, and VR
101	Conrad Meyer-Reed	Unveiling the effects of the Galilean moons on whistler mode waves and energetic particles at Jupiter
102	James Edmond	Using Multi-Stage Unsupervised Clustering to Automatically Separate Plasma Regions in the Dayside Magnetosphere
103	Abhinav Prasad	Whistler-mode wave generation in the lunar space during interplanetary shock events

Inner MAGnetosphere (IMAG)

28	Muhammad Fraz Bashir	Electron anisotropic population in the thin current sheets during the substorm growth phase