Agenda – Fall 2021 Community Workshop (Waterville Valley NH)

Agenda - MMS Community Workshop, to be held Oct 19-21 2021 in Waterville Valley NH and remotely

No SWG is planned

(all times in EDT, UTC-4)

****** Tuesday, October 19 ******				
Presenting Author	**Virtual / In-Person**	**Title**	**Start**	**Stop**
Kevin Genestreti	*IP*	*Welcome & day 1 meeting info*	*08:20*	*08:30*
Session 1, Chair: Allison Jaynes, Virtual Meeting Support: Matt Argall				
Yi-Hsin Liu	IP	Connecting X-line heating efficiency to the reconnection rate problem	08:30	08:45
Ida Svenningsson	V	Kinetic generation of whistler waves in the magnetosheath	08:45	09:00
Imogen Gingell	V	The Prevalence of Thin Current Sheets Downstream of Earth's Bow Shock	09:00	09:15
Martin Lindberg	V	Electron kinetic entropy across quasi-perpendicular shocks	09:15	09:30
Dahani Souhail	V	Statistical relationship between the solar wind conditions and the helicity sign of Flux Transfer Events at the Earth's Magnetopause: Cluster and MMS observations	09:30	09:45
Owen Roberts	V	The Kinetic Alfven-like nature of turbulent fluctuations in the Earth's magnetosheath: MMS measurement of the electron Alfven ratio	09:45	10:00
Break			10:00	10:40
Session 2, Chair: Kevin Genestreti, Virtual Meeting Support: Lynn Wilson				
Tommaso Alberti	V	Small-scale Induced Large-scale Transitions in Solar Wind Magnetic Field	10:40	10:55
Kristina Pritchard	IP	Reconnection Rates Measured in Electron Diffusion Regions at the Dayside Magnetopause	10:55	11:10
Katherine Goodrich	IP	Electrostatic Waves and Particle Heating in the Bow Shock as Seen By MMS	11:10	11:25
James Plank	V	Measures of turbulence in the transition region of Earth's bow shock	11:25	11:40
Allison Jaynes	IP	Simulations of energetic electron acceleration in the low-latitude boundary layer of Earth's magnetosphere	11:40	11:55
Jason Shuster	V	Resolving Terms in the Electron Vlasov Equation at Earth's Magnetopause: MMS Observations and Simulations	11:55	12:10
Lunch			12:10	14:10
Session 3, Chair: Lynn Wilson, Virtual Meeting Support: Rick Wilder				
Jonathan Ng	V	Hybrid simulations of magnetosheath high-speed jets and the triggering of magnetopause reconnection	14:10	14:25
Naoki Bessho	V	Reconnection electric fields and outflow speeds in the transition region of the Earth's quasi-parallel bow shock	14:25	14:40
Julia Stawarz	V	Turbulence-Driven Magnetic Reconnection and the Magnetic Correlation Length in Earth's Magnetosheath	14:40	14:55
Kevin Genestreti	IP	The origin of patchy energy conversion in reconnection electron diffusion regions	14:55	15:10
Charlie Farrugia	V	MMS Observations of Energy Conversion at an Arc-Polarized Structure in the Magnetosheath	15:10	15:25
Michael Starkey	IP	Determining the Near-instantaneous Curvature of Earth's Bow Shock using Simultaneous IBEX and MMS Observations	15:25	15:40
Break			15:40	15:55
Session 4, Chair: Katy Goodrich, Virtual Meeting Support: Kevin Genestreti				
Li-Jen Chen	IP	How MMS enables new understanding of solar wind-magnetosphere interaction at Earth and Mars	15:55	16:10
Kush Masheshwari	V	Possible Cause of Magnetic Field Pileup in 3D Interlinked Magnetic Reconnection	16:10	16:25
Mojtaba Akhavan-Tafti	V	MMS Observations and Hybrid-Vlasov Simulation of Magnetic Flux Bundle Coalescence	16:25	16:40
Mark Hubbert	IP	Observational Evidence for Electron-Only Reconnection as an Onset Phase from Quiet Current Sheets to Traditional Reconnection	16:40	16:55
James Webster	IP	IMF Y-component reversals during BZ south convection	16:55	17:10
Discussion led by Steve Schwartz		**Discussion question: Does electron physics really matter?**	17:10	18:00
Tuesday, Oct 9, reception: 18:30-20:30 (estimated)				

****** Wednesday, October 20 ******				
Presenting Author *Kevin Genestreti*	*IP*	**Title** *Day 2 meeting info*	**Start** *08:25*	**Stop** *08:30*
Session 5, Chair: Hadi Madanian, Virtual Meeting Support: Katy Goodrich				
Konrad Steinvall	V	On the accuracy and applicability of different single-spacecraft interferometry methods	08:30	08:45
Lynn Wilson	IP	Particle acceleration by nonlinear, magnetosonic-whistler precursors	08:45	09:00
Prayash Sharma Pyakurel	IP	On the short-scale spatial variability of electron inflows in electron-only magnetic reconnection in the turbulent magnetosheath observed by MMS	09:00	09:15
Quentin Lenouvel	V	Geometry of asymmetric reconnection near the Electron Diffusion Region	09:15	09:30
Martin Hosner	V	Statistical investigation of lower-hybrid waves at magnetotail dipolarization fronts	09:30	09:45
Soboh Alqeeq	V	Investigation of the homogeneity of the energy conversion processes at dipolarization fronts observed by MMS	09:45	10:00
Break			10:00	10:40
Session 6, Chair: Riddhi Bandyopadhyay, Virtual Meeting Support: James Webster				
Stephen Fuselier	IP	Reconnection x-line orientations at the Earth's magnetopause	10:40	10:55
Steven Schwartz	IP	Characteristics of intense current-carrying structures in the terrestrial magnetosheath	10:55	11:10
Hadi Madanian	IP	The interaction of a solar wind reconnecting current sheet with Earth's bow shock and magnetosphere	11:10	11:25
Patricia Reiff	IP	MHD Aspects of Dayside Reconnection	11:25	11:40
Charlie Bowers	IP	MAVEN Survey of Magnetic Flux Ropes in the Martian Ionosphere:Comparison with 3 Types of Formation Mechanisms	11:40	11:55
Joo Hwang	V	Bifurcated current sheet observed on the boundary of Kelvin-Helmholtz vortices	11:55	12:10
Lunch - chairlift to top of Mt Tecumseh			12:10	14:10
Session 7, Chair: James Webster, Virtual Meeting Support: Hadi Madanian				
Kevin Delano	IP	Time Lag of the Dayside Magnetosphere's Response to Large Changes in the Solar Wind He^{++}/H^{+} Ratio	14:10	14:25
Susanne Spinnangr	IP	Magnetic reconnection during varying inflow conditions	14:25	14:40
Neha Srivastava	IP	Role of Ambipolar diffusion in magnetic reconnection in partially ionized plasma	14:40	14:55
Riddi Bandyopadhyay	IP	Energy Dissipation in Turbulent Reconnection	14:55	15:10
Tak Chu Li	IP	Identifying active magnetic reconnection in simulations and in situ observations of plasma turbulence using magnetic flux transport	15:10	15:25
Yi Qi	IP	Magnetic Flux Transport Identification of Active Reconnection: MMS observations in the Earth's magnetosphere	15:25	15:40
Break			15:40	15:55
Session 8, Chair: Craig Pollock, Virtual Meeting Support: Dominic Payne				
James Edmond	IP	Resolving Bow Shock Crossings using Unsupervised Machine Learning	15:55	16:10
Scott Boardson	V	Planar Coherent Waves observed in Magnetospheric Multi Scale Fast Plasma Imager Phase Space Measurements	16:10	16:25
Xiaocan Li	IP	Turbulence properties relevant to particle acceleration and transport in 3D reconnection	16:25	16:40
Roy Torbert	IP	Some New Versions of 3D Magnetic Field Reconstructions	16:40	16:55
Discussion led by Stephen Fuselier	**IP**	**Is there conclusive evidence that a significant amount of mass, energy, and momentum gets transferred into the magnetosphere by any process other than reconnection?**	16:55	17:45
Wednesday, Oct 20, Buffet Dinner at base lodge with fire put and transportation: 18:30-21:30				

****** Thursday, October 21 ******				
Presenting Author *Kevin Genestreti*	*IP*	**Title** *Day 3 meeting info*	**Start** *08:25*	**Stop** *08:30*
Session 9, Chair: Matt Argall, Virtual Meeting Support: Kris Pritchard				
Hiroshi Hasegawa	V	Reconstruction of the electron diffusion region with inertia and compressibility effects	08:30	08:45
Naritoshi Kitamura	V	Energy Transfer Between Hot Protons and Electromagnetic Ion Cyclotron Waves in Compressional Pc5 Ultra-low Frequency Waves	08:45	09:00
Rumi Nakamura	V	Thin Current Sheet Behind the Dipolarization Front	09:00	09:15
Olivier Le Contel	V	Multiscale analysis of a current sheet crossing associated with a fast earthward flow during a substorm event detected by MMS	09:15	09:30
Drew Turner	V	Ionospheric and atmospheric impacts from relativistic electron precipitation during substorms: New insights from conjunctions between MMS and the ELFIN CubeSats	09:30	09:45
Izzak Boucher	V	New Inner Magnetosphere Electric Field Model Maps Electric Potential Using MMS Data	09:45	10:00
Break			10:00	10:40
Session 10, Chair: Barbara Giles, Virtual Meeting Support: Matt Argall				
James Burch	IP	The EDR Inflow Region of a Reconnecting Current Sheet in the Geomagnetic Tail	10:40	10:55
Joon Kim	IP	Low Energy H+ Asymmetric Field-Aligned Distribution in the Outer Magnetosphere: The Conjunction Study with MMS, NOAA and SWMF/BAT-S-RUS	10:55	11:10
Kyunghwan Dokgo	IP	Waves Generated by Electron Beam in a Crater-Shaped Flux Rope	11:10	11:25
Matthew Argall	IP	Kinetic Entropy in a Magnetotail Electron Diffusion Region	11:25	11:40
Michael Hesse	IP	Reconnection for very low inflow densities	11:40	11:55
Misha Sitnov	V	Magnetotail X-lines in MMS era: Ion diffusion regions vs global data-mining reconstructions	11:55	12:10
Lunch			12:10	14:10
Session 11, Chair: Li-Jen Chen, Virtual Meeting Support: Kevin Genestreti				
Joachim Birn	V	Contrasting earthward and tailward exhausts in near tail reconnection	14:10	14:25
Mitsuo Oka	IP	Electron energy partition in Earth's Magnetotail Reconnection	14:25	14:40
Richard Denton	V	Polynomial reconstruction of the magnetic field for an MMS event without spacecraft 4 FPI data	14:40	14:55
Dominic Payne	IP	The Phases of Reconnection Growth	14:55	15:10
Qile Zhang	V	Efficient Nonthermal Ion and Electron Acceleration in 3D Magnetic Reconnection	15:10	15:25
Hakon Kolsto	IP	MMS Observations of an Expanding Oxygen Wave in Magnetic Reconnection	15:25	15:40
Break			15:40	15:55
Session 12, Chair: Kevin Genestreti, Virtual Meeting Support: Riddhi Bandyopadhyay				
Diana Rojas-Castillo	V	Current sheet structure and guide field: MMS observations	15:55	16:10
Steven Heuer	IP	Aspect Ratio of the Electron Diffusion Region	16:10	16:25
Weiji Sun	V	Energetic electrons associated with a pair of flux ropes and X-line in between in Earth's magnetotail: MMS Observations	16:25	16:40
Akhtar Ardakani	IP	The role of O+ in dynamics of the earth's magnetotail reconnection-MMS preliminary results	16:40	16:55
Discussion led by Tai Phan	**IP**	**Is turbulence just a consequence of low-beta reconnection? Does turbulence really play an important role in heating?**	16:55	17:45