MMS 2nd Science Community Workshop
Boulder, Colorado, 6-8 June 2017

First Author

Session Topics & Presentation Titles

Day 1 Session 1 - Reconnection Diffusion Region: Observations - Biotech A108

* Structure of the Reconnection Electron Diffusion Region at the Dayside Magnetopause — James L Burch [1]
* Dissipation Signatures in Dayside Reconnection — Roy B. Torbert [2]
* Diffusion region's structure and evaluation of Ohm's law at the subsolar magnetopause diffusion region with MMS data — Giulia Cozzani [3]
* Time dependence of magnetopause reconnection — Kevin Genestreti [4]
* Pulsating versus time dependent magnetic field reconnection — Bob Ergun [5]
* Simultaneously observed ion- and electron-scale quadrants of the reconnection Hall magnetic field at the magnetopause — Rongsheng Wang [6]
* Multi-point Measurements of the Electron Jet of Symmetric Reconnection With a Moderate Guide Field — Frederick D. Wilder [5]
* Ion and Electron Scale Reconnection in the Magnetosheath — Tai Phan [7]

Day 1 Session 2 - Reconnection Diffusion Region: Simulations - Biotech A108

* 3D Simulations of MMS Magnetopause Reconnection Events with and without a guide field — James F. Drake [8]
* MHD Modeling of MMS Reconnection Sites — Patricia H Reiff [9]
* Diamagnetic drift and field aligned current at Earth’s dayside magneto-pause: Magnetospheric Multiscale observations and global simulations — John Dorelli [10]
* The Role of Whistlers in Energy Dissipation During MMS Observations of Magnetic Reconnection — Marc Swisdak [8]
* On the current and pressure balance in the reconnection diffusion region — Michael Hesse [11]

Day 1 Session 3 - Currents - Biotech A108

* Factors Controlling Collisionless Reconnection Rate	Thomas E. Moore [10]
* Effective Reconnection Rates: Estimating a Stable Magnetopause Normal	Sarah K. Vines [12]
* Dissecting electron-scale currents at the magnetopause	Jason R. Shuster [10]
* Magnetospheric Multiscale Observations of Field-Aligned Currents Near the Dayside Magnetopause, and Implications for Magnetosphere-Ionosphere Coupling	Robert J. Strangeway [13]

Day 2 Session 4 - FTEs & Flux Ropes - Biotech A108

* Scaling the ion inertial length and its implications modeling reconnection in global simulations	Gabor Toth [14]
* Global three-dimensional simulation of Earth's dayside reconnection using a two-way coupled MHD with embedded particle-in-cell model	Yuxi Chen [14]
* Filamentary currents in five FTEs observed by MMS	John C. Coxon [15]
* MMS observations of active ion scale flux ropes at the magnetopause	Love Alm [2]
* MMS Examination of Stress Balance in FTE-Type Flux Ropes at the Earth’s Magnetopause	Mojtaba Akhavan-Tafti [14]
* MMS observations of magnetic islands at the Earth’s Magnetopause	Stephen A. Fuselier [1]
* Direct Observation of Expanding and Contracting Flux Transfer Events embedded in the Earth’s Magnetopause	Cong Zhao [13]
* Characteristics of minor ions within FTEs as observed by MMS	Steven M. Petrinec [16]

Day 2 Session 5 - Energetic Particles / Magnetotail - Biotech A108

* Energetic particle enhancements and VLF waves in the vicinity of dayside reconnection	Allison N. Jaynes [5]
* Dominance of high energy (>150 keV) heavy ion intensities in Earth's middle to outer magnetosphere	Ian J. Cohen [12]
* MMS FEEPS Energetic Electron Microinjection Observations during 2015 and 2016	Joseph F. Fennell [17]
* The Three Dimensional Structure and Dynamics of Magnetotail Reconnection	Ray Walker [13]
* Energetic particle populations in reconnection exhausts in the tail	Joachim Birn [18]
* Field-aligned Poynting flux near the plasma sheet boundary as observed by MMS	Julia E. Stawarz [19]
* Relativistic electron increase during chorus wave activities on the 6-8 March 2016 geomagnetic storm	Hiroshi Matsui [2]
* Parallel currents, electromagnetic waves and electron phase-space hole like signatures detected by MMS during a substorm	Olivier Le Contel [3]
* Magnetospheric Multiscale (MMS) Study of Substorm Injections	Daniel N. Baker [5]

Day 2 Poster Session - LASP SPSC Lobby ***[6:00pm-9:30pm]***

* Global Convection Dynamics During MMS Dayside Magnetopause Electron Diffusion Region Encounters	Brian J. Anderson[#] [12]
* Dissipation and energy transfer processes at kinetic scales in plasma turbulence using MMS data	Alexandros Chasapis[##] [20]
* Double Layers Throughout the Magnetosphere and Their Relation to Magnetic Reconnection	Katherine A. Goodrich [5]
* Dissipation Measurements with EDI in Large Parallel Electric Fields near Reconnection Site	Narges Ahmadi [5]
* Observing Energetic Particle Injections Across Multiple Spacecraft/Missions	Trevor W. Leonard [5]
* Anti-parallel versus component reconnection at the Earth magnetopause	Karlheinz J. Trattner [5]

 # presented by S.K. Vines *## presented by C.C. Haggerty*

Day 2 Poster Session [cont] - LASP SPSC Lobby ***[6:00pm-9:30pm]***

* MMS observations of proton harmonic and EMIC waves in the magnetotail — Maria Usanova [5]
* The structure of the magnetopause diffusion region around reconnection onset: MMS observations — Alessandro Retinò [3]
* Simultaneous MMS Observations of Two Electron Diffusion Regions along a Large Guide Magnetic Field — Stefan Eriksson [5]

Day 3 Session 6a - Waves - Biotech A108

* The “Notch” Instability as a Mechanism for Producing Both Negative- and Positive-Potential Solitary Structures Observed by MMS in the Magnetosheath — David L. Newman [21]
* Multispacecraft Observations and 3D Structure of Solitary Waves — Justin Holmes [5]
* Analysis of whistler radiation patterns near the electron diffusion region — Scott A. Boardsen [10]
* Observations of wave-particle interactions in the flux pile-up region of asymmetric reconnection — Matthew R. Argall [2]
* Direct measurements of energy exchange between EMIC waves and ions in the magnetosphere — Naritoshi Kitamura [22]
* Studies of waves during asymmetric reconnection in laboratory and space — Jongsoo Yoo [23]

Day 3 Session 6b - Turbulence - Biotech A108

* Pressure Agyrotropy in Magnetized Plasma: Measurements and Application in Turbulent Magnetic Reconnection — Haihong Che [10]
* Exploring the Statistics of Magnetic Reconnection: X-Points in Kinetic Particle-in-Cell (PIC) Turbulence — Colby C. Haggerty [20]
* Investigation of turbulence in the magnetosheath with observations from Magnetospheric Multiscale's Fast Plasma Instrumentation — William R. Paterson [10]
* Electron-scale fluctuations of turbulent kinetic energy — Daniel J. Gershman [10]

* Characteristics and Identification of Plasma Turbulence in Earth's Magnetosheath Observed by MMS over the First Sub-Solar Apogee Pass: Three Case Studies — David Mackler [10]
* New insights into sub-ion scale turbulence in Earth's magnetosheath using MMS data — Hugo Breuillard [3]

Day 3 Session 7 - Bow Shock / Magnetosheath - Biotech A108

* A Hot Flow Anomaly at the Earth's bow shock: Under the MMS microscope — Steven J. Schwartz [19]
* The Extra-magnetospheric environment as seen by MMS-HPCA — Roman G. Gomez [1]

* MMS observations and hybrid simulations of ripples at a marginally quasi-parallel shock — Imogen Gingell [19]
* He^{++} influence on quasiperpendicular shocks — Jeffrey M. Broll [24]

* MMS Observations of a Hot Flow Anomaly in the Magnetosheath — Hui Zhang [25]

* Dissipation Mechanisms and Particle Acceleration at the Earth's Bow Shock — Mihir I. Desai [1]

Day 1=Tuesday 6 June Presentations 09:00-17:20

Day 2=Wednesd. 7 June Presentations 09:00-17:10 & 9 Posters 18:00-

Day 3=Thursday 8 June Presentations 09:00-17:00

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DIRECTIONS to VENUE & Parking Lot #544:

Please see all 3 maps at http://lasp.colorado.edu/meetings/mms2017/travel-and-logistics/venue/

VENUE -- Jenny Smoly Caruthers Biotech Building -- Auditorium A108

(1) Aim for big building with white chimneys on top….

(2) Find "Etai's Bakery Café East Campus" or just "CAFE" on maps -- South side of building.

(3) Enter through Southeast entrance off Innovation Drive (elevators available at stairs)

Find Auditorium A108 - 1st floor down the Hall --

….. just beyond CAFÉ on left & restrooms farther down on your right

Parking Lot #544 = LASP SPSC (3665 Discovery Dr) 5-min walk Biotech A108

Parking permit -- valid 1 week for those who signed up

Parking Permit pick-up is 07:45-09:00am daily at LASP SPSC Front Desk

Please see maps for directions to lot #544 at URL above.

If you think you need Parking and didn't sign up at registration, please contact Stefan.

The Biotech building is open 7am-6pm daily.

Meeting Notes -- Contact Info

Light Breakfast *[fruits, pastries, coffee, tea]* ***served ALL days 08:30-09:00 -- Outside A108***

Lunches served all days just outside A108. Seating available in the vicinity of A108.

Occasional LUNCH BOXES on tables -- ONLY for those that listed DIETARY restrictions.

Please NO FOOD & NO BEVERAGES inside A108 - H_2O only exception

Thank you so much for your understanding. It's a carpet thingy…but you will get your frequent fixes right outside :)

Please contact Stefan with any questions at stefanese@gmail.com or call 303-229-4706