

GEM 2014 Summer Workshop Agenda

Last updated: April 11, 2014

Sunday, June 15, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater
08:00-09:30 AM	Student Breakfast Buffet at Holley Ballroom I-III			
08:00-10:00 AM	Student Registration at Ports Registration			
09:30-12:00 PM				Student Session
12:00-01:30 PM	Student Lunch Buffet at Holley Ballroom I-III			
01:30-03:15 PM				Student Session
03:15-03:40 PM	Break			
03:40-05:15 PM				Student Session
03:00-05:00 PM	Registration at Ports Registration			
06:00-09:00 PM	Icebreaker Reception at Terrace			

Monday, June 16, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater
07:00-08:15 AM	Breakfast Buffet at Holley Ballroom I-VII			
07:00-09:00 AM	Registration at Ports Registration			
08:15-10:00 AM	IMS tutorial Probing the tempest: Current concepts and recent revelations concerning the nature of Earth's inner magnetosphere and geomagnetic storms <i>by Drew Turner</i> MIC tutorial Modeling the Ionosphere/Plasmasphere System: Quiet and Stormtime Conditions <i>by Joe Huba</i>			
10:00-10:30 AM	Break at Portsmouth Foyer			
10:30-12:15 PM		GGCM Magnetic Reconnection in the Magnetosphere	IMS Radiation Belts & Wave Modeling	IMS/MIC Storm-Time Inner Magnetosphere-Ionosphere Convection
12:15-01:30 PM	Lunch On Own			
01:30-03:00 PM		GGCM Magnetic Reconnection in the Magnetosphere	IMS Radiation Belts & Wave Modeling	IMS/MIC Storm-Time Inner Magnetosphere-Ionosphere Convection
03:00-03:30 PM	Break at Portsmouth Foyer			
03:30-05:00 PM	Special Session Strategic Priorities for Funding in the NSF Antarctic Program	GGCM/Tail Joint Session Magnetic Reconnection in the Magnetosphere/Tail-inner Magnetosphere Interactions	IMS Radiation Belts & Wave Modeling	IMS/MIC/GGCM Joint Session Storm-Time Inner Magnetosphere-Ionosphere Convection/Geospace System Science
05:45-06:30 PM	Student Science Forum at Holley Ballroom I-III			
06:30-09:00 PM	Student Dinner at Holley Ballroom I-III			

Tuesday, June 17, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater
07:00-08:15 AM	Breakfast Buffet at Holley Ballroom I-VII			
07:00-09:00 AM	Registration at Ports Registration			
08:15-10:00 AM	Tail Tutorial Onset Conditions for Impulsive Magnetic Energy Release <i>by Jim Klimchuk</i> GGCM Tutorial Effects of Plasma-sheet Bubble Injections <i>by Jian Yang</i>			
10:00-10:30 AM	Break at Portsmouth Foyer			
10:30-12:15 PM		GGCM The Ionospheric Source of Magnetospheric Plasma-Measuring, Modeling and Merging into the GEM GGCM	IMS Joint Session Radiation Belts & Wave Modeling/Quantitative Assessment of Radiation Belt Modeling	Tail Tail-inner Magnetosphere Interactions
12:15-01:30 PM	Lunch On Own			
01:30-03:00 PM		GGCM The Ionospheric Source of Magnetospheric Plasma-Measuring, Modeling and Merging into the GEM GGCM	IMS Quantitative Assessment of Radiation Belt Modeling	Tail Tail-inner Magnetosphere Interactions
03:00-03:30 PM	Break at Portsmouth Foyer			
03:30-05:00 PM		GGCM The Ionospheric Source of Magnetospheric Plasma-Measuring, Modeling and Merging into the GEM GGCM	IMS Quantitative Assessment of Radiation Belt Modeling	Tail Tail-inner Magnetosphere Interactions
06:00-09:00 PM	Poster Session\Reception at Holley Ballroom I-VII			

Wednesday, June 18, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater
07:00-08:15 AM	Breakfast Buffet at Holley Ballroom I-VII			
07:00-09:00 AM	Registration at Ports Registration			
08:15-10:00 AM	Agency Reports from NSF, NASA and NOAA. Dayside tutorial The Science of the MMS Mission <i>by Jim Burch</i>			
10:00-10:30 AM	Break at Portsmouth Foyer			
10:30-12:15 PM		GGCM The Ionospheric Source of Magnetospheric Plasma-Measuring, Modeling and Merging into the GEM GGCM	IMS Quantitative Assessment of Radiation Belt Modeling	GGCM Geospace System Science
12:15-01:30 PM	Lunch On Own			
01:30-03:00 PM		Dayside Transient Phenomena at the Magnetopause and Bow Shock and Their Ground Signatures	IMS Quantitative Assessment of Radiation Belt Modeling	GGCM Geospace System Science
03:00-03:30 PM	Break at Portsmouth Foyer			
03:30-05:00 PM		Dayside Transient Phenomena at the Magnetopause and Bow Shock and Their Ground Signatures	MIC Scientific Magnetic Mapping & Techniques	GGCM Geospace System Science
06:30-09:30 PM	GEM Banquet at Spirit of Norfolk Dinner Cruise. Boarding time: 06:30 PM.			

Thursday, June 19, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater	
07:00-08:15 AM	Breakfast Buffet at Holley Ballroom I-VII				
07:00-09:00 AM	Registration at Ports Registration				
08:15-10:00 AM	Dayside tutorial Dayside solar wind - magnetosphere coupling <i>Antonius Otto</i> GGCM tutorial Prospects for data assimilation in global magnetosphere models <i>by Jimmy Raeder</i>				
10:00-10:30 AM	Break at Portsmouth Foyer				
10:30-12:15 PM		Dayside Transient Phenomena at the Magnetopause and Bow Shock and Their Ground Signatures	MIC Scientific Magnetic Mapping & Techniques	GGCM Geospace System Science	
12:15-01:30 PM	Lunch On Own				
01:30-03:00 PM	THEMIS training session	Dayside/GGCM Session The Magnetosheath/Geospace Science	Joint Magne-System	MIC/GGCM Joint Session Scientific Magnetic Mapping & Techniques/Metrics and Validation	IMS Inner Magnetosphere Cross-Energy/Population Interactions
03:00-03:30 PM	Break at Portsmouth Foyer				
03:30-05:00 PM	THEMIS training session	Dayside/GGCM Session The Magnetosheath/Magnetic Reconnection in the Magnetosphere	Joint Magne-System	GGCM Metrics and Validation	IMS Inner Magnetosphere Cross-Energy/Population Interactions
06:00-09:00 PM	Poster Session\Reception at Holley Ballroom I-VII				

Friday, June 20, 2014

Time	Plenary Session Ports Ballroom IV-V	Concurrent Session Ports Ballroom I-III	Concurrent Session Ports Ballroom VI-VIII	Concurrent Session Amphitheater
07:00-08:15 AM	Breakfast Buffet at Holley Ballroom I-VII			
07:00-09:00 AM	Registration at Ports Registration			
08:15-10:00 AM	Tail Tutorial Determination of the Global Conductance Pattern and its Influence on the Dynamics of Geospace <i>by Mike Wiltberger</i> Student Selected Radiation Belts: Lost and Found in Antarctica <i>by Robyn Millan</i>			
10:00-10:30 AM	Break at Portsmouth Foyer			
10:30-12:15 PM		Dayside The Magnetosheath	GGCM Metrics and Validation	IMS Inner Magnetosphere Cross-Energy/Population Interactions
12:15-01:30 PM	Lunch On Own			
01:30-03:00 PM	Plenary Wrap-up Session			
03:00-03:15 PM	Break at Portsmouth Foyer			
03:15-05:30 PM	Steering Committee Meeting at the Holley Ball V-VII			

Details of Breakout Sessions

Research Area	Focus Group	Conveners	Session	Time	Room	Descriptions
IMS	Radiation Belts and Wave Modeling	Y. Shprits, S. Elkington, J. Bortnik and C. Kletzing	4-1	10:30 - 12:15 PM, Monday, June 16	Ports Ballroom VI-VIII	Discussing FG challenges and reporting back on the achievements of the FG in the past 5 years.
			4-2	01:30 - 03:00 PM, Monday, June 16	Ports Ballroom VI-VIII	Discussing FG challenges and reporting back on the achievements of the FG in the past 5 years.
			4-3	03:30 - 05:00 PM, Monday, June 16	Ports Ballroom VI-VIII	Discussing FG challenges and reporting back on the achievements of the FG in the past 5 years
			4-4	10:30 - 12:15 PM, Tuesday, June 17	Ports Ballroom VI-VIII	Joint session with <i>FG Quantitative Assessment of Radiation Belt Modeling</i> . Wrap-up and transition to the new FG.
Dayside	The Magnetosheath	S. Petrinec and K. Nykyri	3-1	01:30 - 03:00 PM, Thursday, June 19	Ports Ballroom VI-VIII	Joint Session with <i>FG Geospace System Science</i> . The Origins of the non-adiabatic heating from magnetosheath into magnetosphere
			3-2	03:30 - 05:00 PM, Thursday, June 19	Ports Ballroom VI-VIII	Joint Session with <i>FG Magnetic Reconnection in the Magnetosphere</i> .
			3-3	10:30 - 12:15 PM, Friday, June 20	Ports Ballroom VI-VIII	
GGCM	Metrics and Validation	T. Guild, L. Rastaetter, and H. Singer	3-1	01:30 - 03:00 PM, Thursday, June 19	Ports Ballroom VI-VIII	Joint Session with <i>FG Scientific Magnetic Mapping and Techniques</i>
			3-2	03:30 - 05:00 PM, Thursday, June 19	Ports Ballroom VI-VIII	Model Uncertainty: Dealing with uncertain physical processes and boundary conditions
			3-3	10:30 - 12:15 PM, Friday, June 20	Ports Ballroom VI-VIII	Validating Models Under Extreme Geomagnetic Conditions
GGCM	The Ionospheric Source of Magnetospheric Plasma - Measuring, Modeling and Merging into the GEM GGCM	R. Schunk, R. Chappell, and D. Welling	4-1	10:30 - 12:15 PM, Tuesday, June 17	Ports Ballroom I-III	Models and measurements
			4-2	01:30 - 03:00 PM, Tuesday, June 17	Ports Ballroom I-III	Models and measurements
			4-3	03:30 - 05:00 PM, Tuesday, June 17	Ports Ballroom I-III	Discussion and planning for the future
			4-4	10:30 - 12:15 PM, Wednesday, June 18	Ports Ballroom I-III	Discussion and planning for the future
MIC	Scientific Magnetic Mapping & Techniques	E. Donovan, E. MacDonald, and R. Millan	3-1	03:30 - 05:00 PM, Wednesday, June 18	Ports Ballroom VI-VIII	
			3-2	10:30 - 12:15 PM, Thursday, June 19	Ports Ballroom VI-VIII	

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Research Area	Focus Group	Conveners	Session	Time	Room	Descriptions
			3-3	01:30 - 03:00 PM, Thursday, June 19	Ports Ballroom VI-VIII	Joint Session with <i>FG Metrics and Validation</i>
Tail	Tail-Inner Magnetosphere Interactions	Pontus Brandt, John Lyon, and Frank Toffoletto	4-1	03:30 - 05:00 PM, Monday, June 16	Ports Ballroom I-III	Joint Session with <i>Magnetic Reconnection in the Magnetosphere</i>
			4-2	10:30 - 12:15 PM, Tuesday, June, 17	Amphitheater	General Contributions
			4-3	01:30 - 03:00 PM, Tuesday, June, 17	Amphitheater	A TIMI challenge
			4-4	10:30 - 12:15 PM, Tuesday, June, 18	Amphitheater	Wrap-up and planning
Dayside	Transient Phenomena at the Magnetopause and Bow Shock and Their Ground Signatures	Hui Zhang, Q.-G. Zong, Michael Ruohoniemi, and David Murr	3-1	01:30 - 03:00 PM, Wednesday, June, 18	Ports Ballroom I-III	
			3-2	03:30 - 05:00 PM, Wednesday, June 18	Ports Ballroom I-III	
			3-3	10:30 - 12:15 PM, Thursday, June 19	Ports Ballroom I-III	
GGCM	Magnetic Reconnection in the Magnetosphere	Paul Cassak, Andrei Runov, and Homa Karimabadi	4-1	10:30 - 12:15 PM, Monday, June 16	Ports Ballroom I-III	
			4-2	01:30 - 03:00 PM, Monday, June 16	Ports Ballroom I-III	
			4-3	03:30 - 05:00 PM, Monday, June 16	Ports Ballroom I-III	Joint Session with <i>FG Tail-Inner Magnetosphere Interactions</i>
			4-4	03:30 - 05:00 PM, Thursday, June 19	Ballroom I-III	Joint Session with <i>FG The Magnetosheath</i>
IMS/ MIC	Storm-Time Inner Magnetosphere-Ionosphere Convection	Joseph Baker, Michael Ruohoniemi, Stanislav Sazykin, Peter Chi, and Mark Engebretson	3-1	10:30 - 12:15 PM, Monday, June 16	Amphitheater	
			3-2	01:30 - 03:00 PM, Monday, June 16	Amphitheater	
			3-3	03:30 - 05:00 PM, Monday, June 16	Amphitheater	Joint Session with <i>Geospace System Science</i>
GGCM	Geospace System Science	Joe Borovsky, Bill Lotko, Vadim Uritsky, Juan Valdivia	6-1	03:30 - 05:00 PM, Monday, June 16	Amphitheater	Joint Session with <i>FG Storm-Time Inner Magnetosphere-Ionosphere Convection</i>
			6-2	10:30 - 12:15 PM, Wednesday, June 18	Amphitheater	What Is Systems Science for the Magnetosphere?

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Research Area	Focus Group	Conveners	Session	Time	Room	Descriptions
			6-3	01:30 - 03:00 PM, Wednesday, June 18	Amphitheater	Timescales, Time Lags, and Feedback Loops in the M-I System
			6-4	03:30 - 05:00 PM, Wednesday, June 18	Amphitheater	Long-Running Measurements of the State of the System: What Can Be Done?
			6-5	10:30 - 12:15 PM, Thursday, June 19	Amphitheater	Planning Session for the Systems Science Focus Group.
			6-6	01:30 - 03:00 PM, Thursday, June 19	Ports Ballroom I-III	Joint Session with <i>FG The Magnetosheath</i> . The Origins of the non-adiabatic heating from magnetosheath into magnetosphere.
IMS	Inner Magnetosphere Cross-Energy/Population Interactions	Yiqun Yu, Colby Lemon, Michael Liemohn, Jichun Zhang	3-1	01:30 - 03:00 PM, Thursday, June 19	Amphitheater	The influence of plasmasphere and ring current populations on wave excitation and distribution, and the feedback effect on these populations
			3-2	03:30 - 05:00 PM, Thursday, June 19	Amphitheater	The coupling of the ring current plasma with fields
			3-3	10:30 - 12:15 PM, Friday, June 20	Amphitheater	Improvements in self-consistent simulations of wave-particle interactions, particle precipitation, and ionospheric conductivity model.
IMS	Quantitative Assessment of Radiation Belt Modeling	Jay Albert, Wen Li, Steve Morley, Weichao Tu	5-1	10:30 - 12:15 PM, Tuesday, June 17	Ports Ballroom VI-VIII	Joint session with <i>FG Radiation Belts and Wave Modeling</i> . Wrap-up the old FG and transition to the new FG.
			5-2	01:30 - 03:00 PM, Tuesday, June 17	Ports Ballroom VI-VIII	Review RB models (Part I).
			5-3	03:30 - 05:00 PM, Tuesday, June 17	Ports Ballroom VI-VIII	Review RB models (Part II, where we are and what is needed); Review RB input models for waves, seed population, magnetic field configuration etc. (Part I)
			5-4	10:30 - 12:15 PM, Wednesday, June 18	Ports Ballroom VI-VIII	Review RB input models (Part II, what is available and what is missing).
			5-5	01:30 - 03:00 PM, Wednesday, June 18	Ports Ballroom VI-VIII	Plan for future FG activities.
Training	THEMIS training sessions	Jim Lewis	2-1	01:30 - 03:00 PM, Thursday, June 19	Ports Ballroom VI-V	SPEDAS for plugin developers. More ¹
			2-2	03:30 - 05:00 PM, Thursday, June 19	Ports Ballroom VI-V	SPEDAS/TDAS tutorial. More ²

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Research Area	Focus Group	Conveners	Session	Time	Room	Descriptions
Special Session	Strategic Priorities for Funding in the NSF Antarctic Program	Alan Weatherwax, Robert Clauer	1-1	03:30 - 05:00 PM, Monday, June 16	Ports Ballroom VI-V	NSF has requested that the National Academy of Science develop a consensus recommendation on the most compelling research that can be supported in the coming decade and outline steps forward to implement this research. This meeting is to engage the space science community to participate in the development of this consensus recommendation. More ³

More¹

This session is intended for developers who are interested in contributing plugin modules to support new missions or data sets within the SPEDAS framework and analysis tools. SPEDAS (Space Physics Environment Data Analysis Software) has evolved from a THEMIS-specific set of tools, to a more general multi-mission framework. We will present newly released features and capabilities of the framework, followed by an open discussion and Q&A regarding the road map for future development.

More²

This session is intended for users who are interested in using SPEDAS for loading, plotting, and analyzing data from THEMIS and other supported missions. We will present a variety of data analysis scenarios, focused mostly on THEMIS data, but touching on some of the other multi-mission capabilities. The formal presentation will be followed by an open Q&A, help session, and installation clinic.

More³

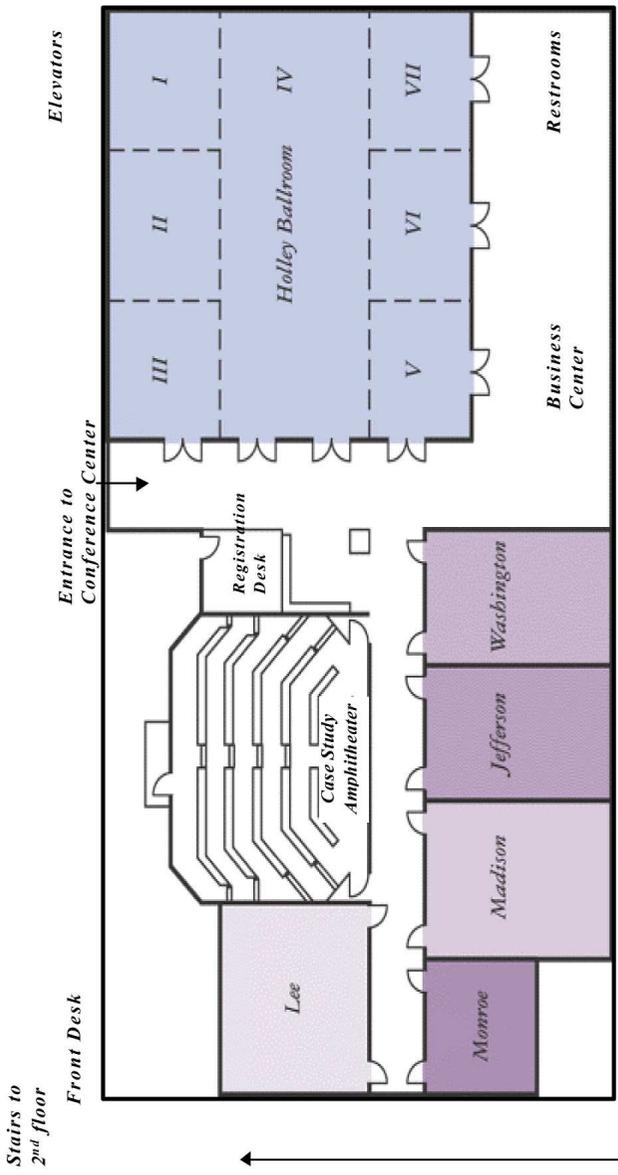
NSF has requested that the National Academy of Science develop a consensus recommendation on the most compelling research that can be supported in the coming decade and outline steps forward to implement this research. This meeting is to engage the space science community to participate in the development of this consensus recommendation. The Antarctic can be a platform for measurements and investigation of space weather phenomena and several measurement programs are presently active. How should funding priorities be set for this research during the coming decade? Please help to establish these priorities. Very broad key scientific questions have been identified in the 2011 NRC report “Future Science Opportunities in the Antarctic and Southern Ocean”. The relevant question for our community is “What can the Antarctic platform reveal about the interactions between the Earth and the space environment”. The results from the NAS committee established to develop funding priorities will have an important impact on funding decisions at NSF and our research community needs to be strongly represented.

Link to the study site: Development of a Strategic Vision and Implementation Plan for the U.S. Antarctic Program at the National Science Foundation <http://dels.nas.edu/Study-In-Progress/Development-Strategic-Vision/DELS-BASCPR-13-03>

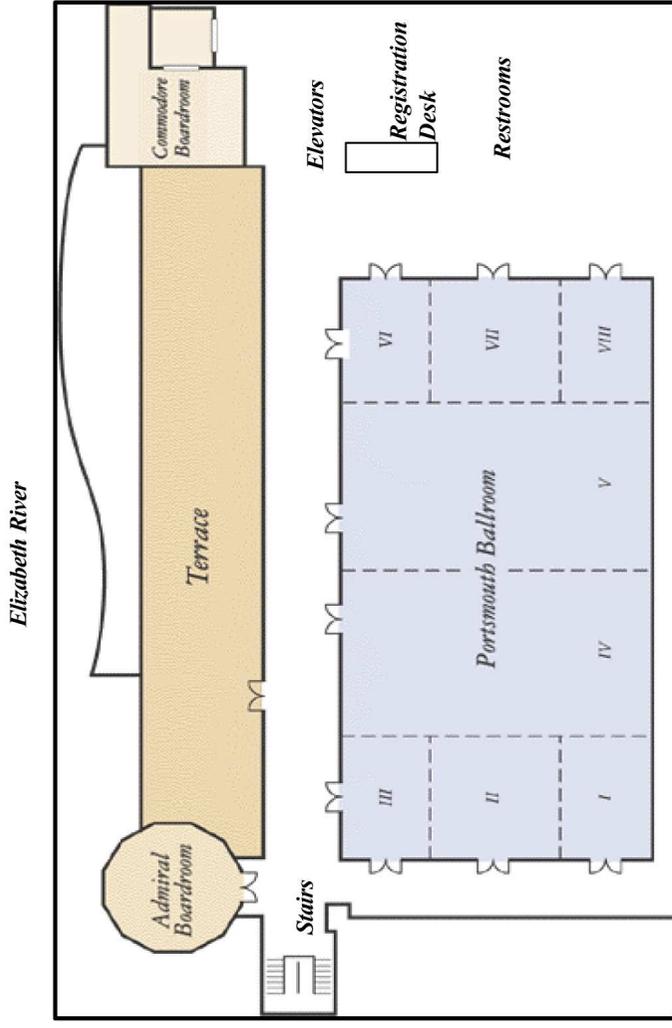
Suggested preparation for the session, Please suggest: (a) Up to three compelling research questions that are ripe for major advances in understanding and that could feasibly be achieved in the coming decade (b) specific technological, infrastructure, or data-sharing developments that are needed to enable this research (c) possible opportunities to advance this research through interagency cooperation, international cooperation, or other innovative arrangements.

Meeting Space and Public Areas

1st Floor Waterfront Conference Center



2nd Floor Portsmouth Ballroom and Boardrooms



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