

## MOP 2007

Sunday 24<sup>th</sup> JUNE 2007

6:30pm Registration/Reception

Monday 25<sup>th</sup> JUNE 2007

Time	Author	Title	Page #
<b>7:30</b>	<b>Coffee/Breakfast</b>		
8:15	Retherford, K.	Welcome	
8:30	Feldman et al.	FUSE Observations of the Jovian System at the Time of the New Horizons Flyby	2
8:45	Retherford et al.	New Horizons LORRI Observations of Io's Visible Aurora in Eclipse	3
9:00	Gladstone et al.	Observations of Aurora and Airglow from New Horizons During its Jupiter Flyby	4
9:15	Kostiuk et al.	Strong Solar Control of Infrared Aurora on Jupiter	5
9:30	Elsner et al.	The Morphology of the X-Ray Emission above 2 keV from Jupiter's Aurorae	6
<b>9:45</b>	<b>Break</b>		
10:15	Clarke	The HST Auroral Observing Campaign of Saturn and Jupiter	7
10:45	Grodent et al.	Jupiter's Changing Auroral Location	8
11:00	Prangé et al.	A Search for the Boundary Between the Jovian Auroral Features Controlled by the Planetary Rotation and by the Solar Wind	9
11:15	Alexeev et al.	Mapping the Jovian Magnetosphere Down to the Auroral Structures with a Global Magnetospheric Model	10
11:30	General Discussion	Next meeting location	
<b>11:45</b>	<b>Lunch</b>		
1:00	Nichols et al.	The Jupiter Solar Wind Interaction	11
1:30	Morioka et al.	Rotationally Driven Quas-Periodic Emissions in the Jovian Magnetosphere	12
1:45	Strangeway et al.	Linear Dispersion Analysis for Ring-Beam Generated Ion Cyclotron Waves	13
2:00	Katoh et al.	Characteristics of Whistler-Mode Chorus Emissions in the Jovian Magnetosphere	14
2:15	Hess et al.	Io-Jupiter Interaction, Millisecond Bursts and Field Aligned Potentials	15
<b>2:30</b>	<b>Break</b>		
3:00	Gérard et al.	The Auroral Footprint Signatures of Satellites on Jupiter	16
3:30	Imai et al.	A New Beaming Model of Jupiter's Decametric Radio Emissions	17
3:45	Mauk and Saur	Equatorial Electron Beams and Auroral Structuring at Jupiter	18
4:00	Jacobsen et al.	Breakdown of the Law of Reflection for Io-Generated Alfvén Waves	19
4:15	Paterson	Ion Temperatures and Densities in Jupiter's Middle Magnetosphere and Consequences for Aurora	20
4:30	Posters 1	(Jupiter: 20)	

## MOP 2007

Tuesday 26<sup>th</sup> JUNE 2007

Time	Author	Title	Page #
<b>7:30</b>	<b>Coffee/Breakfast</b>		
8:30	Bagenal et al.	New Horizons Exploration of the Jovian Magnetotail	43
9:00	Elliott et al.	Solar wind conditions near Jupiter Measured with the Solar Wind Around Pluto (SWAP) Instrument on New Horizons	44
9:15	McComas et al.	First Plasma Observations of Jupiter's Deep Magnetotail	45
9:30	M. E. Hill et al.	Particle Composition and Dynamics During New Horizon's 2000 R <sub>J</sub> Flight Down the Core of Jupiter's Magnetotail: First Results from PEPSSI	46
<b>9:45</b>	<b>Break</b>		
10:15	Southwood	ESA's Cosmic Vision	
10:30	Thorne and Horne	Particle Acceleration in Magnetospheres	47
11:00	Ray et al.	Effect of Field-Aligned Potentials on Angular Momentum Transfer at Jupiter	48
11:15	Ergun et al.	Electron Acceleration at Jupiter: Alfvén Waves and Parallel Electric Fields	49
11:30	Su et al.	Generation of Short-Burst Emissions through Alfvénic Acceleration of Auroral Electrons: Electron Maser Instability	50
<b>11:45</b>	<b>Lunch</b>		
1:00	Krupp	Review of Plasma Dynamics in the Magnetospheres of Jupiter and Saturn	51
1:30	Krimigis	Ring currents at Jupiter and Saturn compared to Earth	52
1:45	Bunce et al.	Evidence of Upward Field-Aligned Currents at the Open-Closed Field Line Boundary in Saturn's Noon Magnetosphere: Observations and Theory	53
2:00	Mitchell et al.	Saturn's Aurora: its Relationship to Energetic Particles in the Middle and Outer Magnetosphere	54
2:15	Pryor et al.	Cassini UVIS Observations of Saturn's Auroras	55
3:00	Posters 2	(Saturn: 15)	
5:00	River Boat Tour		
6:00	Banquet		

## MOP 2007

Wednesday 27<sup>th</sup> JUNE 2007

<b>Time</b>	<b>Author</b>	<b>Title</b>	<b>Page #</b>
<b>7:30</b>	<b>Coffee/Breakfast</b>		
8:30	Zieger and Hansen	Solar Wind Propagation from 1 AU to the Outer Planets: a 1D MHD Approach	73
8:45	Masters et al.	Cassini Observation of Hot Flow Anomalies at Saturn's Bow Shock	74
9:00	McAndrews et al.	Detection and Frequency of Reconnection at Saturn's Magnetopause	75
9:15	Fukazawa et al.	Formation of the Magnetic Island Wall at the Dayside Magnetopause in the Kronian Magnetosphere	76
9:30	Dougherty et al.	A View of Saturn's Magnetosphere from the Cassini Magnetic Field Observations	77
<b>9:45</b>	<b>Break</b>		
10:05	Kurth et al.	On the Rotation Period of Saturn	78
10:35	Khurana et al.	Field Periodicities caused by a Tilted Rotating Current Sheet in Saturn's Magnetosphere	79
10:50	Arridge et al.	Cassini CAPS Observations in Saturn's Polar Magnetosphere	80
11:05	Andre et al.	Cassini Electron Spectrometer Observations of Spin-Periodic Oscillations in the Inner Saturnian Magnetosphere	81
11:20	Sittler, Jr., et al.	Cassini Observations of Saturn's Dawn-Magnetotail Region: Preliminary results	82
<b>11:35</b>	<b>Lunch</b>		
12:50	Southwood	Rotational Phenomena and the Saturnian Magnetic Field: Internal and External Interaction	83
1:20	Gurnett et al.	Radio Emissions and Magnetic Fields Associated with a Rotating Plume of Outward Flowing Plasma in Saturn's Magnetosphere	84
1:35	Zarka et al.	Saturn's Variable Radio Period: Modulation by the Solar Wind	85
1:50	Wang et al.	Rotational Modulation of Narrowband Radio Emissions in Saturn's Magnetosphere	86
2:05	Southwood et al. (by Kivelson)	Field-Aligned Currents, Magnetic Cam, Current Sheet and Circulation in the Saturn Magnetosphere	87
2:20	Vasyliunas	Does the Camshaft Connect to the Ionosphere of Saturn?	88
<b>2:35</b>	<b>Break</b>		
2:55	Farmer	Saturn's Spin Periodicity Controversy: Recommendation for Future Work	89
3:25	Dessler	Drifting Saturn SKR and Variable Jupiter System IV – A Solar Analog	90
3:40	Cecconi et al.	Goniopolarimetry of the SKR	91
3:55	Lamy et al.	Statistical Characteristics and Beam Properties of Saturn Kilometric Radiation	92
4:10	Kidder and Winglee	Examination of Plasma Filling in Saturn's	93
4:25	T. W. Hill et al.	Plasmoids in Saturn's Magnetotail	94
4:40	Jackman et al.	A Multi-Instrument View of Tail Reconnection at Saturn	95
4:55	Posters 3	(Moons: 12)	

## MOP 2007

Thursday 28<sup>th</sup> JUNE 2007

Time	Author	Title	Page #
<b>7:30</b>	<b>Coffee/Breakfast</b>		
8:30	Steffl et al.	The Tail Wagging the Dog: Hot Electrons as the Driver of Azimuthal Variations in the Io Plasma Torus	110
8:45	Jones and Su	Alfvénic Acceleration of Io Torus Electrons	111
9:00	Delamere and Bagenal	Saturn's Neutral Torus vs. Jupiter's Plasma Torus	112
9:15	Smyth and Marconi	Plasma-Neutral Regimes in the Jupiter and Saturn Magnetosphere	113
<b>9:30</b>	<b>Break</b>		
10:00	Schilling	Review of Magnetosphere Interaction with Icy Satellites and their Neutral Atmospheres	114
10:30	Trafton et al.	Modeling Io's UV-V Eclipse Aurorae from the Joint HST-Galileo Io Campaign	115
10:45	Cassidy et al.	Constituents of Europa's Atmosphere	116
11:00	Jia et al.	A More Realistic Ganymede Magnetosphere Generated by Three-dimensional MHD Simulations	117
11:15	McGrath	Aurora on Ganymede	118
<b>11:30</b>	<b>Lunch</b>		
12:45	Mitchell	Energetic Ion Precipitation in Titan's Upper Atmosphere	119
1:15	Eviatar et al.	Comparison of Voyager PLS and CAPS Observations Around Titan: Plumes Versus Blobs	120
1:30	Najib et al.	A Comparison of MHD Model Calculations with Observations for the T18 Flyby of Titan by Cassini	121
1:45	Neubauer et al.	On the Nature and Magnitude of an Internal Magnetic Field of Titan from Theory and Cassini Observations	122
2:00	Snowden and Winglee	3-D Multi-Fluid Simulations of Titan's Induced Magnetosphere including Ion-Neutral Interactions	123
<b>2:15</b>	<b>Coffee</b>		
2:45	Coates et al.	Negative Ions in Titan's Upper Atmosphere: Status of Observations and Theory	124
3:15	Ajello et al.	Titan UVIS Airglow Spectra: Modeling and Laboratory Studies	125
3:30	Burger et al.	The Enceladus Water Plume and its Interactions with the Saturnian Plasma	126
3:45	Saur et al.	Hemisphere Coupling in Satellite Plasma Interaction	127
4:00	Paty et al.	Understanding Enceladus' Plume Through Simulation: Incorporating Ion-Neutral Interactions Into 3D Multi-fluid Simulations	128
4:15	Satellite Wrap Up		
5:30	Entertainment		

## MOP 2007

Friday 29<sup>th</sup> JUNE 2007

Time	Author	Title	Page No.
<b>7:30</b>	<b>Coffee/Breakfast</b>		
8:30	Crary et al.	Vertical Distribution on Ions in Saturn's Inner Magnetosphere	130
8:45	Hamilton et al.	The Relative Strengths of Saturn's Plasma Sources Deduced from Suprathermal Ion Composition	131
9:00	Santos-Costa et al.	Transport, Losses, and Sources of 1-eV to 10-keV Energy Electrons in Saturn's Inner Magnetosphere: First Analysis Results from Diffusion Theory	132
9:15	Kane et al.	Ion Convective Anisotropies Detected by the Cassini INCA Experiment in Saturn's Magnetosphere	133
<b>9:30</b>	<b>Break</b>		
10:00	Mauk and Rymer	The Role of Dynamic Injections in the Transport of Plasmas in Outer Planet Magnetospheres: Observational Evidence	134
10:30	Hansen et al.	Nitrogen Plasma Distribution in Saturn's Magnetosphere	135
10:45	Smith et al.	Nitrogen Sources in Saturn's Magnetosphere	136
11:00	Williams et al.	Abundances and Energetics for Water Group and Molecular Oxygen Ions in Saturn's Magnetosphere After 24 Cassini Orbits	137
11:15	Moore and Mendillo	Are Plasma Depletions in Saturn's Ionosphere Caused by Explosive Surges of Water?	138
<b>11:30</b>	<b>Lunch</b>		
12:45	Jackman	The Interaction of the Solar Wind with Saturn's Magnetosphere	139
1:15	Badman	Relationship of Solar Wind Compressions and Saturn Kilometric Radiation Phase and Intensity	140
1:30	Persoon et al.	Plasma Density Structures at High Auroral Latitudes in Saturn's Magnetosphere	141
1:45	Rymer et al.	Electron Circulation in Saturn's Magnetosphere	142
<b>2:00</b>	<b>Break</b>		
2:30	Vasyliunas	Magnetospheric Convection on Closed Field Lines in Planetary Magnetospheres	143
3:00	Chen and Hill	Statistical Analysis of Injection/Dispersion Events in Saturn's Magnetosphere	144
3:15	Wilson et al.	Cassini IMS Observations of Radial Velocity of Thermal Plasma in Saturn's Inner Magnetosphere	145
3:30	Wu et al.	Rice Convection Model Simulations of Centrifugal Interchange Instability in Saturn's Magnetosphere	146
3:45	Saturn Wrap up		
4:30	Final Words		

**Jupiter Posters**  
**Monday – 4:15pm**

<b>No.</b>	<b>Author</b>	<b>Title</b>	<b>Page #</b>
J1	Allegrini et al.	JADE-E: The Plasma Electron Sensor for the Juno Mission	22
J2	Barnhart et al.	Electron Densities in Jupiter's Outer Magnetosphere Determined from Voyager Plasma Wave Spectra	23
J3	Chané and Poedts	The Jovian Magnetosphere: Numerical Simulations	24
J4	Crary et al.	JADE-1: The Plasma Ion Sensor for the Juno Mission	25
J5	Gladstone et al.	Chandra and XMM Observations of Jupiter's X-ray Emissions During the New Horizons Flyby	26
J6	Haggerty et al.	Particle Composition and Dynamics During New Horizon's Approach to the Jovian System: First Results from PEPSSI	27
J7	Hansen et al.	Rotational Dynamics of the Jovian Magnetosphere	28
J8	Hess et al.	Distribution of Electron Energy and Acceleration Features in the Jovian S-Burst Emission	29
J9	Hess et al.	Jovian S-Bursts Generation by Alfvén Waves	30
J10	Kasaba et al.	Jovian Magnetospheric Studies by Our Orbiters	31
J11	Khurana et al.	Evidence for Solar Wind Driven Reconnection in Jupiter's Magnetosphere	32
J12	Kimura et al.	Occurrence and Source Characteristics for the High Latitudinal Component of Jovian Broadband Kilometric Radiation	33
J13	Livengood	Jovian Ultraviolet Auroral Intensity Independent from Solar Activity	34
J14	McComas et al.	Exploring Jupiter's Aurora using the Jovian Auroral Distribution Experiment (JADE)	35
J15	Misawa et al.	Long Term Variation of Jupiter's Decametric Radio Emission	36
J16	Nomura et al.	Preliminary Report of the Unusual Enhancement of the Jovian Synchrotron Radiation at a Frequency of 327 MHz	37
J17	Pallier et al.	Correlation Between FUV Cusps and Decametric Radio Emissions of Jupiter	38
J18	Santos-Costa et al.	Time Variability of the Jovian Radiation-Belt Emission	39
J19	Tao et al.	Numerical Simulation on the Rotation Modulation of the Jupiter's Magnetosphere-Ionosphere Coupling Current	40
J20	Tsuchiya et al.	Short Term Variations of Jupiter's Synchrotron Radiation at 325 MHz Observed by Iitate Planetary Radio Telescope	41

**Saturn Posters**  
**Tuesday- 3:00 pm**

<b>No.</b>	<b>Author</b>	<b>Title</b>	<b>Page #</b>
S1	Achilleos et al.	A Survey of Magnetopause Structure at Saturn Observed by Cassini	57
S2	Arridge et al.	Plasma Electrons in Saturn's Magnetotail	58
S3	Badman et al.	Significance of Dungey-Cycle Flows in Jupiter's and Saturn's Magnetospheres, and their Identification on Closed Equatorial Field Lines	59
S4	Burton et al.	Updated Model of Saturn's Planetary Magnetic Field	60
S5	Goldstein et al.	Spatial Distribution and Dependence of Saturnian Injection Events, and Implication for Equatorial Current Sheet	61
S6	Hospodarsky et al.	Whistler Mode Chorus Observations at Saturn	62
S7	Kempf et al.	Interaction of Saturnian Dust Streams with the Solar Wind	63
S8	Lamy et al.	Diurnal Modulation of AKR Observed by Cassini/RPWS and Consequences on Magnetospheric Dynamics	64
S9	Leisner et al.	Using Doppler Shift to Study Energy Flow in Saturn's Ion Cyclotron Wave Belt	65
S10	Manweiler et al.	Non-Gyrotropic Penetrating Radiation Observed in the Regions of Saturn's Rings	66
S11	Masters et al.	Kronian Bow Shock Survey: Results from the First Five Orbits of the Cassini Spacecraft	67
S12	Menietti et al.	Analysis of Plasma Waves Observed Within Local Plasma Injections within Saturn's Magnetosphere	68
S13	Pontius et al.	Inferring the Radial Profile of Mass Loading in Saturn's Magnetosphere from the Observed Corotation Lag	69
S14	Roussos et al.	Determining the Timing of Injections at Saturn: Prospects from Energetic Electron Absorption by the Icy Moons	70
S15	Tadokoro et al.	Characteristics of Pitch Angle Distribution in Saturn's Inner Magnetosphere	71

**Satellites Posters**  
**Wednesday- 4:55 pm**

<b>No.</b>	<b>Author</b>	<b>Title</b>	<b>Page #</b>
M1	Ballester et al.	Studies of Europa's Plasma Interactions and Atmosphere with HST/STIS Far-UV Images	97
M2	Dols et al.	A Multi-Species Chemistry Approach of Io's Interaction: Mass and Energy Fluxes in the Torus, Pickup Currents, UV Oxygen Emission and the Role of High Energy Electron Beams	98
M3	Eckberg et al.	Electrodynamic Interactions between the Moons and Magnetospheres of the Outer Solar System	99
M4	Herbert et al.	Constrained Inversion of Enceladus Interaction Observations	100
M5	Higgins et al.	Satellite Influence on Jupiter's Radio Emission	101
M6	Johnson et al.	Sources of $H_2^+$ and $O_2^+$ in Saturn's Magnetosphere	102
M7	Retherford	HST Io Aurora Observations During the New Horizons Flyby: The Response of Io's Magnetospheric Interaction to Eclipse	103
M8	Steffl et al.	UV Observations of the Io Plasma Torus from New Horizons and Rosetta	104
M9	Tucker et al.	Plasma Ion and Proton Induced Heating and Sputtering of Titan's Atmosphere	105
M10	Wei et al.	Titan Interaction: Lessons from Venus	106
M11	Winglee et al.	Modeling the Coupled Interaction of Titan with the Kronian Magnetosphere	107
M12	Zarka et al.	Modeling of Io-Jupiter Decameter Arcs, Emission Beaming and Energy Source	108