

Cassini MAPS Workshop 2012 (28-30 March)

The duration of each presentation is 20 minutes (= 15 min. talk + 5 min. discussion).

Please upload your files on the computers in the meeting room before your session.

It is not possible to use your own laptops.

<u>Wednesday, 28 March</u>

- 08:30 Registration opens
- 09:00-09:15 Welcome and introduction (MAPS-LOC)

Session 1: Enceladus, dust and rings (Chairperson: Michele Dougherty)

- 09:15-09:35 Kempf, Sascha: The electro-static potential of E ring grains
- 09:35-09:55 <u>Hsu, Hsiang-Wen:</u> Composition Mapping of Saturn's Main Rings
- 09:55-10:15 Persoon, Ann: Mapping Electron Density Distributions Near the Enceladus L-Shell
- 10:15-10:35 <u>Waite, J. Hunter:</u> Enceladus gas plume update
- 10:35-11:00 Coffee break

Session 1 continued: Enceladus, dust and rings (Chairperson: Sven Simon)

- 11:00-11:20 <u>Crary, Frank:</u> Very high (1.5%) energy resolution measurements of ions in the Enceladus plume
- 11:20-11:40 <u>Wahlund, Jan-Erik:</u> Langmuir probe observations of the Enceladus plume
- 11:40-12:00 Kriegel, Hendrik: Hybrid Simulations of Enceladus Plasma Interaction: Latest Results
- 12:00-12:20 Paty, Carol: Multi-fluid models at Enceladus and Saturn

12:20-13:30 Lunch break

Session 2: Icy satellites Hyperion, Rhea and Dione (Chairperson: Hendrik Kriegel)

- 13:30-13:50 <u>Nordheim, Tom:</u> Surface charging on small bodies: Likely detection at Saturn's icy moon Hyperion
- 13:50-14:10 Simon, Sven: Cassini magnetometer observations over the poles of Rhea

- 14:10-14:30 <u>Roussos, Elias:</u> The interaction of Rhea with Saturn's magnetosphere: energetic electron observations
- 14:30-14:50 <u>Krupp, Norbert:</u> Energetic particle observations during the three Cassini Dione flybys compared with other icy moon encounters
- 14:50-15:10 <u>Teolis, Ben:</u> INMS Detection of Dione's exosphere: Composition, Structure & Temporal Variability
- 15:10-15:40 Coffee break

Session 3: Titan (Chairperson: Fritz M. Neubauer)

- 15:40-16:00 <u>Ågren, Karin</u>: Negative ions detected in the deep ionosphere of Titan during T70
- 16:00-16:20 <u>Richard, Matt:</u> Primary Ion Production Rates in Titan's Ionosphere: Comparisons with Cassini Data
- 16:20-16:40 <u>Westlake, Joseph</u>: Titan's Thermospheric Response to Enhanced Magnetospheric Particle Precipitation
- 16:40-17:00 Mueller-Wodarg, Ingo: Titan Thermosphere Winds and their effect on Composition
- 17:00-17:20 Yelle, Roger: Comments on GCM Simulations of Titan's Upper Atmosphere
- 17:20-17:40 Yelle, Roger: The Thermal Structure of Titan's Upper Atmosphere

Thursday, 29 March

Session 3 continued: Titan (Chairperson: Jan-Erik Wahlund)

- 09:00-09:20 <u>Waite, J. Hunter:</u> Titan Ion Neutral Chemistry
- 09:20-09:40 Bertucci, Cesar: The magnetic geometry of Titan's induced magnetosphere
- 09:40-10:00 Bebesi, Zsofia: On the structure of Titan's tail
- 10:00-10:20 <u>Snowden, Darci:</u> Three-dimensional multi-fluid simulations of Titan's plasma interaction at 0, 6, 12, and 18 SLT in a sub-Alfvenic and super-Alfvenic plasma environment and influence of magnetospheric heat sources

10:20-10:50 Coffee break

Session 3 continued: Titan (Chairperson: Jan-Erik Wahlund)

- 10:50-11:10 <u>Westlake, Joseph:</u> Observations of Titan's Ion Tail
- 11:10-11:30 <u>Snowden, Darci</u> Deposition of magnetically-mirroring auroral electrons in Titan's ionosphere
- 11:30-11:50 Coates, Andrew: CAPS observations of plasma escape at Titan

Session 4: Rotation rate of Saturn (Chairperson: Joachim Saur)

- 11:50-12:10 Carbary, James: Patterns in SLS4 Longitude
- 12:10-12:30 <u>Brandt, Pontus:</u> An Update on the Current Systems Causing Periodicities: Quantitative Modeling of the Pressure Driven Partial Ring Current
- 12:30-13:40 Lunch break

Session 4 continued: Rotation rate of Saturn (Chairperson: Joachim Saur)

- 13:40-14:00 <u>Vasyliunas, Vytenis M.</u>: Possible atmospheric origin of magnetospheric periodicities at Saturn and the neutral-wind dynamo problem
- 14:00-14:20 <u>Jia, Xianzhe:</u> Saturn's magnetospheric periodicites driven by atmospheric vortex: Global simulation of dual periodicities
- 14:20-14:40 <u>Kivelson, Margaret:</u> Update on the Atmospheric Vortex Model and Comparison with Data
- 14:40-15:00 <u>Khurana, Krishan:</u> The role of an inner magnetospheric vortex in generating spin modulations in the magnetosphere
- 15:00-15:20 Carbary, James: Periodicities After the Equinox
- 15:20-15:40 <u>Brandt, Pontus:</u> A Possible Explanation for the Periodic Plasmapause Boundary Motion

15:40-16:10 Coffee break

Session 5: From inner to outer magnetosphere (Chairperson: Caitriona Jackman)

- 16:10-16:30 <u>Mueller-Wodarg, Ingo:</u> Magnetosphere-Ionosphere-Thermosphere Coupling at Saturn
- 16:30-16:50 <u>Holmberg, Madeleine:</u> Ion densities and velocities in the inner plasma torus of Saturn
- 16:50-17:10 <u>Hamilton, Douglas:</u> Temporal and spatial variations of the suprathermal ion composition in Saturn's magnetosphere
- 17:10-17:30 Kollmann, Peter: Processes forming and sustaining Saturn's proton radiation belts

<u>19:00</u>

MAPS Team Dinner at brewery restaurant "Brauhaus Früh"

Address: Am Hof 12-18 (three minutes from the Cathedral), in the basement vault.

The registration fee includes a three-course meal and three beverages (beer, softdrinks).

Friday, 30 March

Session 5 continued: From inner to outer magnetosphere (Chairperson: Nick Sergis)

- 09:00-09:20 Kurth, William: The Occurrence of Electron Cyclotron Harmonic Bands at Saturn
- 09:20-09:40 <u>Leisner, Jared:</u> Occurrence of young injection events in Saturn's inner magnetosphere
- 09:40-10:00 <u>Andriopoulou, Maria:</u> Evidence of a noon-to-midnight electric field in Saturn, using the radial offsets of satellite electron absorptions
- 10:00-10:20 Szego, Karoly: Characterisation of the magnetodisk using CAPS ion densities

10:20-10:50 Coffee break

Session 6: Middle and outer magnetosphere (Chairperson: Maria Andriopoulou)

- 10:50-11:10 <u>Taubenschuss, Ulrich:</u> Mode conversion in Saturn's magnetosphere
- 11:10-11:30 <u>Dialynas, Konstantinos:</u> The extended Saturnian neutral cloud as revealed by global ENA simulations using Cassini/MIMI measurements
- 11:30-11:50 <u>Jackman, Caitriona:</u> Statistical survey of plasmoids and travelling compression regions at Saturn: size, location, and internal structure
- 11:50-12:10 <u>Jackman, Caitriona:</u> Auroral counterpart of magnetic field dipolarizations in Saturn's tail

12:10-13:20 Lunch break

Session 6 continued: Middle and outer magnetosphere (Chairperson: Norbert Krupp)

- 13:20-13:40 Radioti, Aikaterini: Auroral signatures of injections in the magnetosphere of Saturn
- 13:40-14:00 <u>Badman, Sarah:</u> Auroral signatures of transient magnetopause reconnection at Saturn
- 14:00-14:20 <u>Mitchell, Don:</u> Characteristics of ion conics associated with Saturn's aurora observations by MIMI/INCA
- 14:20-14:40 Sergis, Nick: "Islands" of hot magnetospheric O+ ions in the magnetosheath of Saturn
- 14:40-15:00 Bertucci, Cesar: Saturn's ULF wave foreshock boundary

15:00-15:30 Coffee break

Session 7: Measurements in the solar wind (Chairperson: Emmanuel Chané)

- 15:30-15:50 <u>Krimigis, Stamatios:</u> ENAs from the heliosheath large gradient between the basins and the tail region
- 15:50-16:10 Hospodarsky, George: Solar Wind Densities Upstream of Saturn

17:30-17:40	Closing words, location of MAPS 2013 (Tamas Gombosi, MAPS-LOC)
17:10-17:30	<u>Vandegriff, Jon:</u> Recent additions to the MIDL Analysis Tool: CHEMS PHA Fluxes, Solar Wind Speeds from CHEMS, and MIMI PDS Data
16:50-17:10	Hill, Matthew: Interplanetary Suprathermal Ion Spectral Dynamics
16:30-16:50	<u>Vandegriff, Jon:</u> An Empirical Algorithm for Deriving Solar Wind Speeds from Suprathermal Ions
16:10-16:30	<u>Hill, Matthew:</u> New Solar Wind Speed Estimates from CHEMS Suprathermal Ion Observations



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