

ISSI-EUROPLANET Workshop on “GIANT PLANET MAGNETODISCS AND AURORAE” 26-30 November 2012

DRAFT: November 15, 2012

MONDAY 26 November, 2012

Notice: All presentations are 45' slots include 15' of questions

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| 08:30-09:00 | Registration in ISSI, Hallerstrasse 6, 1 st floor | |
| 09:00-09:15 | Welcome and Introduction to ISSI and Workshop | TBD (two names, ISSI and EPN) |

Set the scene I

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| 09:15-10:00 | Title TBD | Denis Grodent |
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Session 1 **Characterise and understand mass and energy momentum transport in magnetodiscs**

Chairman: TBD

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| 10:00-10:45 | Review Talk | Nick Achilleos |
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10:45-11:15 Coffee break

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| 11:15-12:00 | The interchange instability | Nicolas André |
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| 12:00-12:45 | First discussion: THE BOOK | |
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12:45-14:00 Lunch

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| 14:00-14:45 | The neutral – plasma interaction | Peter Delamere |
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| 14:45-15:30 | Simulation of interchange and other instabilities in the Kronian Magnetosphere. | Robert Winglee |
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15:30-16:00 Coffee break

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| 16:00-16:45 | Energetic Neutral Atoms and Planetary Ring Currents | Pontus Brandt |
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| 16:45-17:30 | Observational wave signatures of mass-loading in magnetodisc systems | Xochitl Blanco-Cano |
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17:30 Welcome reception

TUESDAY 27 November, 2012

Session 2 **Characterise how the solar wind influences magnetodiscs and the auroral responses to solar wind-driven dynamics**

Chairman: TBD

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| 9:00-9:45 | Review Talk | Fran Bagenal/ Peter Delamere |
| 9:45-10:30 | Structures & Dynamics: Supra-thermals | Chris Paranicas |
| 10:30-11:00 | <i>Coffee break</i> | |
| 11:00-11:45 | Magnetopause boundary processes | Adam Masters |
| 11:45-12:30 | Dynamics of the Polar Aurora | Katerina Radioti |
| 12:30-14:00 | <i>Lunch</i> | |
| 14:00-14:45 | Dynamics of the Main/Rotation Aurora | Bertrand Bonfond |
| 14:45-15:30 | Ionosphere-Magnetosphere Coupling | Licia Ray |
| 15:30-16:00 | <i>Coffee break</i> | |
| 16:00-16:45 | Global modeling of Saturn's magnetosphere | Xianzhe Jia |
| 16:45-17:30 | Auroral Response to Solar Wind Forcing | Jonathan Nichols |

WEDNESDAY 28 November, 2012

Set the scene II

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| 09:00-10:45 | Title TBD | Margaret Kivelson |
| Session 3 | Determine how magnetic reconnection works in magnetodiscs, what are the effects on plasma transport, and what are the associated auroral responses to magnetic reconnection | |
| | | Chairman: TBD |
| 9:45-10:30 | Review Talk | Philippe Louarn |
| 10:30-11:00 | <i>Coffee break</i> | |
| 11:00-11:45 | Reconnection in disc/tail (Saturn/Cassini) | Caitriona Jackman |
| 11:45-12:30 | Reconnection at Jupiter (Jupiter/Galileo) | Satoshi Kasahara |
| 12:30-14:00 | <i>Lunch</i> | |
| 14:00-14:45 | Numerical simulation, disc/tail, link with aurora | Keiichiro Fukazawa/ Chihiro Tao |
| 14:45-15:30 | Mapping Jupiter's auroral features to magnetospheric | Marissa Vogt |
| 15:30-16:00 | <i>Coffee break</i> | |
| 16:00-16:45 | Giant planet magnetodisk dynamics from sc current sheet crossings | Nicolas André |
| 16:45-17:30 | Transport in disc | Elena Kronberg |
| 19:30 | <i>Workshop Dinner</i> | |

Location/Restaurant will be announced at the Workshop

THURSDAY 29 November, 2012

Session 4 **Characterise the spectral and spatial properties of auroral emissions produced by magnetodisc dynamics – are there significant differences between solar wind- and internally-driven dynamics?**

Chairman: TBD

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| 09:00-09:45 | Review Talk | Norbert Krupp |
| 09:45-10:30 | Response of the ionosphere to auroral forcing at the giant planets | Marina Galand |
| <i>10:30-11:00 Coffee break</i> | | |
| 11:00-11:45 | Modeling of Jupiter and Saturn auroral emissions | Chihiro Tao |
| 11:45-12:30 | Spectral and spatial properties of the X-ray aurora of the giant planets | Graziella Branduardi-Raymont |
| <i>12:30-14:00 Lunch</i> | | |
| 14:00-14:45 | Saturn to Jupiter magnetospheric dynamics : a diagnosis from radio emissions | Laurent Lamy |
| 14:45-15:30 | Open-closed field line boundaries | Sarah Badman |
| <i>15:30-16:00 Coffee break</i> | | |
| 16:00-16:45 | Simultaneous infrared and ultraviolet observations of Saturn's aurora | Henrik Melin / Sarah Badman |
| FREE TIME | | |

FRIDAY 30 November, 2012

Session 5 **Determine the sources of local-time asymmetries in magnetodiscs**

Chairman: TBD

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| 09:00-09:45 | Review Talk | Chris Arridge |
| 09:45-10:30 | Auroral evidence for local-time asymmetries | Denis Grodent/ Bertrand Bonfond |
| 10:30-11:00 | <i>Coffee break</i> | |
| 11:00-11:45 | Modelling and observations of local-time asymmetries in magnetic fields and magnetospheric currents | Krishan Khurana |
| 11:45-12:30 | Local time asymmetries in energetic particles | Nick Sergis |
| 12:30-13:15 | Magnetospheric convection at Jupiter and Saturn | Mark Kane |
| 13:15-13:45 | Final discussion: THE BOOK | |

End of Workshop