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**First Circular – Workshop of the International Space Science Institute (ISSI)
and EUROPLANET RI**

GIANT PLANET MAGNETODISCS AND AURORAE

26-30 November 2012

Convenors

Nick Achilleos	(University College London)
Chris Arridge	(Mullard Space Science Laboratory, Holmbury St Mary)
Fran Bagenal	(Laboratory for Atmospheric and Space Physics, Boulder)
Michel Blanc	(IRAP, Toulouse)
Norbert Krupp	(MPI for Solar System Research, Katlenburg-Lindau)
Philippe Louarn	(IRAPI, Toulouse)
Karoly Szego	(Wigner Research Centre for Physics, Budapest)

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Objectives of the Workshop

This workshop is to review current understanding in the field of giant planet magnetodiscs and aurorae and to identify key areas of research, especially in connection with the scientific planning and use of future space missions.

Following discussions by the Convenors, it is proposed that the Workshop will cover the following main themes:

1. Characterise and understand mass and energy momentum transport in magnetodiscs

2. Characterise how the solar wind influences magnetodiscs and the auroral responses to solar wind-driven dynamics
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
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?
5. Determine the sources of local-time asymmetries in magnetodiscs

Short presentations by those attending will be structured around the above headings. This list could, subject to discussion and assessment at the Workshop, become the set of chapter headings for the ISSI-EPN book. All of those attending will be expected to contribute to one or more of the chapters or for the discussions during the talks.

Workshop Program

The preliminary draft programme of the workshop is attached. Participants are asked to review the title of their talk, and if change is needed, please send a mail to Karoly Szego (szego.karoly@wigner.mta.hu)

Product

The very important goal of the workshop will be to produce a reference book on the subject, to be published in the “Space Sciences Series of ISSI”, which will be simultaneously published as a volume of Space Science Reviews. The members of the WS Scientific Organizing Committee will also serve as Editors for the book.

The printed volume will be published after the workshop in the Space Sciences Series of ISSI by Springer editor (see www.issibern.ch/publications). The volume will be issued both as a hardcover book in the ISSI series and also as an issue of the journal Space Science Reviews. It is expected that a total of about 5 sections, submitted to the usual refereeing process will be published in the book. Chapters will be based on talks presented at the Workshop and will reflect the discussions that will be held among the participants during the Workshop. We expect that papers will be due about 3 months after the workshop so they can reflect the discussions during the workshop. All papers will be peer reviewed, and the volume is expected to appear about 12 months after the workshop.

Location

The Workshop will be held at the International Space Science Institute, Hallerstrasse 6, 3012 Bern, Switzerland.

Attendance & Funding

This will be by invitation only with ~ 40 participants maximum including young scientists. There is no registration fee. ISSI-Europlanet will cover subsistence costs (hotel and meals) while in Bern. ISSI will be the sole administrative officer for all local issues.

Accommodation

Hotel rooms have been block booked in different hotels in Bern. Please, indicate your arrival and departure dates to the local organizer Jennifer.Zaugg@issibern.ch not later than *November 12, 2012*.

Please consult the homepage of ISSI for local matters (www.issibern.ch).

Schedule

The second circular will be issued in early November.