

## **Second Circular – Workshop of the International Space Science Institute (ISSI)**

### **Mercury**

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**Date:** 26-30 June 2006

#### **1. General information**

The International Space Science Institute (ISSI) is hosting a workshop on the subject of Mercury. The attendance at this workshop is by invitation only. Almost all who have been invited earlier with a letter of invitation and a First Circular have given a positive reply.

The aim of this Second Circular is to provide the participants with more detailed information on the workshop programme, organisation and logistics, and to enquire about hotel reservation information. A Third Circular will be distributed on 1 June as a reminder and will give some last minute information. Please consult the letter of invitation and our WWW homepage at [www.issi.unibe.ch](http://www.issi.unibe.ch) for general information about ISSI.

#### **2. Workshop topic**

Understanding the origin and nature of Mercury is the aim of this ISSI workshop. The Workshop will review key aspects of our understanding of Mercury the planet, its environment and its place among the terrestrial planets. The Workshop will start out with talks dedicated to the terrestrial planets and Mercury' place among them. There will be, through the week, talks on the interior of Mercury, on the Hermean surface, exosphere, and Mercury's dynamic magnetosphere. The final day of the workshop shall be devoted to reports, book contents, structure, schedule, and others.

**Structure and programme outline:** The Workshop intends to cover most aspects of Mercury. Five themes to be covered during the Workshop have been identified. These are:

1. The terrestrial planets and Mercury. Reviews of existing theories of the origin, formation and evolution of the terrestrial planets, their specificities. The special place of Mercury among the terrestrial planets. Special features of Hermean geology.
2. The interior of Mercury: current status, thermal evolution, models of the origin of the planetary magnetic field.
3. Mercury's surface: reviews of topography (Mariner 10 images and ground-based observations), radar imaging results, surface temperature effects, physical

- properties of the regolith. Modern notion of the structure of the Hermean crust. Geologic history and age estimation.
4. Mercury's exosphere: review of known properties, composition, structure, temporal variability; origin and role of the interface between surface and magnetosphere/solar wind; open questions. Possible origin of alkali metals and calcium in the exosphere.
  5. Mercury's dynamic magnetosphere: review of the factors and phenomena that contribute to the essential variability of the magnetosphere; timescales; modelling methodology. A possible role of orbital eccentricity in regular magnetospheric phenomena.

The Workshop will cover these themes through plenary talks and through two half days of splinter sessions. The talks will cover all five topics, and participants will form four groups (themes 1+2, 3, 4 and 5) for the splinter sessions. An outline timetable for the talks (assuming an average of 30 minutes per talk including discussion) is given below.

day and date	am/pm	programme
Monday 26 June	am	Introductory talks
	pm	Talks
Tuesday 27 June	am	Talks
	pm	Splinter groups
Wednesday 28 June	am	Talks
	pm	Excursion
Thursday 29 June	am	Talks
	pm	Splinter groups
Friday 30 June	am	Reports, book contents, structure, schedule, actions
	pm	End of Workshop

### 3. List of Participants

A list of participants is attached to this Circular and is also on the workshop website.

### 4. Workshop program

The draft workshop program will be available at the workshop website under [program.pdf](#) by the end of April 2006. Other than the introductory talks, all talks will be 30 minutes plus 10-15 minutes for discussion. Some of the talk titles have been chosen by the convenors and thus are tentative only. Speakers should please provide us with a more appropriate title, if they wish, for the final program. Also note that this will not be the final program, so talks may still be shifted, but not from one day to another. The file [program.pdf](#) will be updated as the program reaches final shape.

### 5. Publication

A workshop volume is planned to be published by [Springer](#) both as a hardcover book in the [Space Sciences Series of ISSI](#) (SSSI) and as an issue of the journal [Space Science Reviews](#) (SSRv). It is expected that a total of about 15 review style and quality papers, submitted to the usual refereeing process will be published in the book. Papers will be based on the introductory and contributed talks, and will be moderated by the discussions

in the splinter groups. Papers should be prepared in LaTeX in the SSRv style, which is relatively small, accommodating only some 450-500 words per page full of text. Further details about the publication (including LaTeX style files) will be given at the workshop.

## 6. Funding of the workshop

ISSI will fund the participants by providing the daily subsistence cost during the time of the meeting up to a maximum of 7 days (time of arrival in Bern through departure from Bern). This includes the cost for the hotel and for meals. However, ISSI is not in a position to cover travel costs, taxis, phone calls etc.

There will be no registration fee for this workshop.

ISSI will also cover the publication costs of the printed volume, of which each participant will receive a free copy.

## 7. Equipment available at ISSI

ISSI is equipped with a pool of different kinds of workstations such as PCs, Macs, and Sun Stations, as well as with Postscript printers for both b/w and colour. All machines have Ethernet connections and run web browsers, ssh, telnet, ftp, etc., so connecting home, accessing email, printing, etc. while at ISSI will be no problem.

Participants who bring their own notebook computers will be able to connect to the Ethernet through the standard RJ45 plug. Cables are available at ISSI and addresses will be dealt out by our DHCP server. We also provide wireless access; participants wishing to use that will receive a username/password combination from our computer engineer and system administrator, Saliba F. Saliba ([saliba@issi.unibe.ch](mailto:saliba@issi.unibe.ch)), who will also help with any computer-related questions.

The seminar room is equipped with a computer and beamer for electronic presentations, a video player, two overhead projectors, a slide projector, and a whiteboard.

## 8. Social program

An informal welcome drink will be offered at the end of the first day at ISSI, on Monday, 26 June 2006 at 6 p.m.

A free afternoon is foreseen on Wednesday, 28 June 2006.

A workshop dinner will be offered to all participants in the evening of Thursday, 29 June 2006, at 7:00 p.m., in a restaurant located in the old part of the city.

## 9. Travelling to Bern

Bern can be reached easily from two international airports: [Zurich \(ZRH\)](#) and [Geneva \(GVA\)](#). Direct intercity trains to Bern depart every half hour from inside the airport buildings; see [www.rail.ch](http://www.rail.ch) for detailed departure times. The travel time is ~1.5 hours from Zurich airport and ~2 hours from Geneva airport.

There is also a local airport (Bern, BRN), located a 20 minute shuttle ride from the city centre, with connections to several European cities (London, Munich, etc.). Bern is connected to many European cities by fast intercity trains (e.g. TGV Paris-Bern in 4.5 hours, or Frankfurt-Bern 5 hours). Timetable information of trains within and around Switzerland can be found at [www.rail.ch](http://www.rail.ch). Also check out [www.issi.unibe.ch/guide.html](http://www.issi.unibe.ch/guide.html) for a few more travel tips such as links to city maps of Bern, weather forecasts, currency calculators, etc...

## 10. Hotel reservations

All participants at the workshop are now requested to contact the workshop secretary, Brigitte Fasler (Tel. +41-31-631-4896, Fax: +41-31-631-4897, email: [fasler@issi.unibe.ch](mailto:fasler@issi.unibe.ch)), to indicate their arrival and departure dates and times, as well as any special requests they may have (e.g. double room). A confirmation will be returned within a few days. Block bookings have been made in nearby hotels; please see [www.issi.unibe.ch/hotel\\_info.html](http://www.issi.unibe.ch/hotel_info.html) for a map indicating the location of the hotels and of ISSI.

## 11. Timeline and deadlines

Participants who have not yet sent us their registration form (see [First Circular](#)) are invited to do so soon (**before end of April**), either in pdf form, or by fax. (Please do so even if you have already confirmed your participation by e-mail.)

Third Circular: **1 June 2006**

Hotel reservation information to Brigitte Fasler: **1 June 2006**

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