

Second Circular – Workshop of the International Space Science Institute (ISSI) – 18 October 2016

Exploring the Earth's Ecosystems on a global scale: Requirements, capabilities and directions in space-borne imaging spectroscopy

Date: 21 – 25 November 2016

Location: International Space Science Institute (ISSI), Hallerstrasse 6, 3012 Bern, Switzerland

Workshop website: <http://www.issibern.ch/workshops/earthecosystem/>

Conveners:

Cazenave Anny	(ISSI, Bern, Switzerland & LEGOS, Toulouse, France)
Champollion Nicolas	(ISSI, Bern, Switzerland)
Förster Saskia	(GFZ, Postdam, Germany)
Guanter Luis	(GFZ, Postdam, Germany)
Moreno Jose	(Univ. of Valencia, Valencia, Spain)
Müller Andreas	(DLR, Oberpfaffenhofen, Germany)
Rast Michael	(ESA/ESRIN, Frascati, Italy)
Schaepman Michael	(Univ. Zürich, Zürich, Switzerland)

Local organisation: Alexandra Lehman (secretary) – Lehman@issibern.ch
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Objectives of the Workshop:

In the past decades, imaging spectroscopy has proven to provide accurate, quantitative information on the state and evolution of terrestrial and aquatic ecosystems to monitor environmental change and support a sustainable management of land and water resources. We aim to bring together leading scientists in the world working in this field together with international scientists involved in the scientific preparation of several future hyperspectral satellite missions as well as experts from different disciplines such as hydrology, soil sciences, and ecology. The workshop discussion will be organized along a selection of environmental themes and issues. These may include but are not restricted to climate change impacts, land cover changes and surface processes, biodiversity and ecosystem processes, hazards, and natural resources.

The conveners have tried to establish a list of participants who are currently active in the field and will cover all the relevant topics. We anticipate that the workshop will provide a better and more comprehensive understanding of the capacity of space-borne imaging spectroscopy to the understanding of terrestrial and aquatic ecosystems. We also hope that the workshop will identify new areas where additional geo-biophysical observations and long-term monitoring from space will make a contribution.

Main themes cover by the Workshops:

- Summarize requirements (e.g., for environmental assessment, numerical model input)
- Review and assess capabilities of imaging spectroscopy
- Identify synergies among different Earth Observation missions
- Identify future directions for information retrieval for specific environmental issues

Outcomes of the Workshop:

An important outcome of the workshop is a book published in the Space Sciences Series of ISSI by Springer (SSSI, see www.issibern.ch/publications). This volume is not intended to be the proceedings of the Workshop, but a collection of in-depth peer-reviewed papers informed by the contributions and discussions at the Workshop. It should provide a coherent picture of the current state of the subject. The papers are both published in the hardcover book (in the Space Science Series of ISSI) and individually in a special issue of *Surveys in Geophysics* journal as soon as they are reviewed. We aim for submitting the papers within 6 months after the workshop. While several oral presentations are allocated to each session, we would like to encourage you to aim at overview papers for each topic co-authored by the scientists that contribute to each one of the sessions rather than going for several individual papers on similar topics covered within the same session. The journal issue and the SSSI volume are expected to appear about 12 months after the workshop. A realistic schedule for the publication of the contributions will be discussed and agreed at the end of the Workshop

Expectation of the participants:

We expect from you an oral presentation of about 20 minutes at the workshop (+ 10 minutes for questions) and active participation in the discussions, plus contribution to overview/review papers to be published later on after the workshop into the SSSI volume.

Attendance: This Workshop is by invitation only with a limited number of participants.

Fundings: ISSI provides the subsistence costs (hotel and per diem to cover meals) to all participants while in Bern, and deals with all organizational matters such as reservations, computer issues and reimbursements. However, we are not in a position to cover your travel costs. There is also no registration fee for the Workshop.

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 <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 <http://www.flughafenbern.ch>), located a 20 minutes shuttle ride from the city center, with direct connections to Munich, Berlin Schönefeld, Hamburg, Amsterdam, London City, Vienna and Paris Orly. 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 <http://www.rail.ch>. Also check out our website <http://www.issibern.ch> for a few more travel tips such as links to city maps of Bern, weather forecasts, tourist information, ...

Hotel reservations

A block booking has been made at the hotels Ador, Arabelle and Metropole in city center for the Workshop. All participants at the workshop are requested to contact the workshop secretary, Alexandra Lehmann (Tel. +41-31-631-4896, Fax: +41-31-631-4897, email: alexandra.lehmann@issibern.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 after your request. Please note that all hotel reservations have to be made by the ISSI Secretariat. Please see <http://www.issibern.ch/localguide/location.html> for maps that indicate the location of ISSI and of the hotels (go to “hotels”, and near the bottom of the page “map of hotels”).

Schedule:

First Circular:	28 June 2016
Second Circular & Final Programme:	15 October 2016
Hotel Reservation Deadline:	1 November 2016
Workshop Date:	21 - 25 November 2016