

First Circular - Workshop of the International Space Science Institute (ISSI)
Date - 26 November 2014

Sea level and associated climatic components at global & regional scales as inferred from the ESA Climate Change Initiative

Date: 2-6 February 2015

Conveners:

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Nicolas Champollion	(ISSI, Bern, Switzerland)
Rene Forsberg	(National Space Institute, Denmark)
Pascal Lecomte	(European Space Agency)
Christopher Merchant	(University Reading, UK)
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Objectives of the Workshop

Providing long, accurate records of sea level (global and regional), and of the various components causing sea level changes (land ice, ocean thermal expansion, salinity changes, land water storage, etc.) is crucial for validating the climate models used for future projections. The ESA Climate Change Initiative (CCI) program has provided the framework to produce consistent and continuous space-based records for several climate parameters (so called 'Essential Climate Variables' – ECVs); among them, 'sea level, glaciers, ice sheets, sea surface temperature and ocean colour'.

The objective of this workshop is to discuss in an integrative context recent results obtained by the ESA CCI program for the sea level, glaciers and ice sheets ECVs. Improvement of these ECVs allows better understanding the mass contribution to sea level rise, hence of the sea level budget. The workshop will also address the regional variability in sea level, sea surface temperature and ocean colour, and discuss the relative contributions of the natural/internal climate variability and anthropogenic forcing (detection/attribution) to associated spatial trend patterns.

The Workshop will cover the following main themes

The main goal of the proposed ISSI Workshop is to discuss the state-of-the-art of the research and future prospects.

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

1. Impact of climate change on glaciers, ice sheets, sea level, sea ice, sea surface temperature, and ocean colour
2. Present status of the above CCI Essential Climate Variables (ECVs)
3. Global ocean thermal expansion & mass components
4. Global sea level budget closure
5. Regional variations in sea level & associated climate variables
6. Regional sea level budget closure
7. Sea level projections & land ice contributions

Presentations by the attendees 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 book. All attendees will be invited to contribute to one chapter or more.

Product of the Workshop

Following the Workshop, its output will be published as a volume in the Space Science Series of ISSI by Springer, in parallel with the publication of the papers in Survey in Geophysics. It is expected that a total of about 7 sections and between 20 and 25 review style and quality papers, submitted to the usual refereeing process will be published in the book. Papers will be based on talks presented at the Workshop and will reflect the discussions that will be held among the participants during the Workshop.

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

Attendance: This workshop will be by invitation only with ~ 40/45 participants maximum including young scientists.

Young scientists: Under its special program for supporting young scientists, ISSI will invite (in addition) up to five early career scientists to take a full part in the Workshop.

Funding: ISSI will provide the subsistence costs (hotel and a per diem to cover meals) to all participants but not the travel costs. There will be no registration fee for the Workshop.

Schedule:

First Circular & preliminary program:	26 November 2014
Second Circular & final program:	10 January 2015
Registration & hotel deadline:	10 January 2015
Workshop:	2 – 6 February 2015