

First Circular – Workshop of the International Space Science Institute (ISSI)

11 April 2022

**Tipping Points and Understanding EO data needs for a
Tipping Element Model Intercomparison Project (TipMIP)**

October 10 to 14, 2022

Conveners:

Annett Bartsch (b.geos, Korneuburg, Austria)
Victor Brovkin, (MPI Hamburg, Germany)
Jonathan Donges (PIK, Potsdam, Germany)
Sophie Hebden (Future Earth, Oxford, United Kingdom)
Tim Lenton, (University of Exeter, United Kingdom)
Hannah Liddy (AIMES, NASA Goddard Institute for Space Studies, USA)
Susanne Mecklenburg (ESA ESCAT, Oxford, United Kingdom)
Andrew Shepherd (University of Leeds, United Kingdom)
Narelle van der Wel (WCRP, Geneva, Switzerland)
Michael Rast (ISSI Bern, Switzerland)

Local organisation: J.Fankhauser & Y.Momoh, ISSI, secretary@issibern.ch

Context:

Building on the successful forum on “Tipping points in the Earth’s Climate” in January of 2021, this workshop involves Earth Observation experts in the planning of the experimental protocol and in understanding needs and co-design data-use strategies for modelling of tipping elements and their interactions. Discussions during the workshop are expected to include the broader data requirements of the community working on climate feedbacks and abrupt climate change.

Objective of the Workshop:

With relevance for priorities also of the World Climate Research Program (WCRP), the aim of this workshop is to advance knowledge about tipping elements and irreversibility, and impacts on Earth’s climate and environment. As such the workshop would strive to address a consistent approach in the handling of data related to tipping elements within the scientific community, supporting the development of a roadmap for joint experiments (TipMIP).

The convenors are working on a list of topics for the Workshop, which will form the basis for the agenda and the scientific papers emerging from the Workshop, which will be peer-reviewed (see blow).

Product of the Workshop

A printed volume will be published after the workshop in the *Space Sciences Series of ISSI* by Springer Verlag (see www.issibern.ch/publications). The volume will be issued both as a hardcover book in our series and also as an issue of the journal *Space Science Reviews*. We expect that papers will be due about 3 to 6 months after the workshop so they can reflect the discussions during the workshop. This volume is NOT intended to be the proceedings of the Workshop, but a collection of in-depth papers inspired by contributions and discussions at the Workshop, with emphasis on interdisciplinarity (a total of about 15 to 20 high-quality topical review papers is expected). 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: by invitation only, ~ 45-50 participants maximum.

Young scientists: Under its special programme of supporting young scientists, ISSI will invite (in addition) 4 to 6 early career scientists, within 2 years of their PhD, 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 charge for the Workshop.

Schedule:

Formal invitations and First Circular:	11 April 2022
Registration deadline:	30 April 2022
Second Circular and final program:	August 2022
Hotel deadline:	27 September 2022
Workshop:	October 10-14, 2022