

ISSI team on Scenarios of Future Solar Activity for Climate Modelling

May 5-8 2015

The programme below is flexible, with plenty of time for raising questions and addressing them at the meeting. As a rough guide, for each presentation, we should have about 30'-40' for presentation, and an equal amount of time for discussion. Although our team will focus on multi-decadal time scales (up to 500 years ahead), the 2100 prediction horizon will of course be of special interest.

in red = by Skype

Tuesday, May 5th (9:00—18:00): CMIP6 requirements

We shall start with a presentation of multi-decadal reconstructions and the CMIP6 programme: its scope, what does it need in terms of solar inputs, etc.

- **Maurizio Falanga**: welcome
- **Adam Scaife**: the CMIP6 initiative and multi-decadal reconstructions
- **Katja Matthes and Bernd Funke** : existing inputs for SOLARIS-HEPPA, and future needs (Katja will attend by Skype)
- **Amanda Maycock**: solar variability in ozone datasets for models that do not have interactive chemistry + SolarMIP
- **Jürg Beer**: solar forcing in the PAGES and FUPSOL project.
- **Ilya Usoskin**: reconstructions of solar activity based on cosmogenic isotopes (by Skype: 14:00-16:00)

Wednesday, May 6th (9:00—18:00) : Reconstructions of past solar activity

This part aims at giving an overview of available reconstructions of past solar activity, with the objective to define future scenarii. Presentations will be given by

- **Jürg Beer**: reconstructions of solar activity based on cosmogenic isotopes. What can/can't we use ?
- **Luke Barnard**: reconstructions of heliospheric observables & geomagnetic indices
- **Thierry DdW**: what can we say about solar spectral variability ?

Thursday, May 7th (9:00—18:00): What reconstructions for CMIP6 ?

This part deals with the prediction of solar activity: what kind of prediction are we able to provide, and which ones are meaningful for climate modelling (probabilistic, upper/lower bounds, etc.)

- **Luke Barnard**: space climate predictions
- **Jürg Beer**: predictions of solar activity
- **Paul Charbonneau**: constraints on solar variability (by Skype, 15:00-18:00)
- discussion on possible predictions or forecasts

Friday, May 8th (9:00—12:00) : Deliverables for CMIP6

Among the questions to be addressed

- What can we meaningfully deliver ? (+ practical issue of data format, etc.)
- When can be best fit in the tight agenda of CMIP6 ?
- Review article to accompany the data set
- Next meeting: when, and what focus ?