ISSI Tropical Width Diagnostics Intercomparison Project 2017 Meeting Agenda

**Monday March 13th**

***Introduction***

13:00 ­– 13:15: Introduction and welcome (Maurizio Falanga, Alexandra Lehman, Sean Davis)

13:15 – 13:45: Overview of the ISSI Tropical Width Diagnostics Intercomparison Project (Rosenlof)

13:45 – 14:15: Introduction to US CLIVAR Working Group on Tropical Width Variability (Grise/Staten)

***Recent progress and ongoing work in tropical width research***

14:15 – 14:45: Robust changes in the Hadley Circulation extent and strength in PMIP3 and CMIP5 climate simulations (Adam)

14:45 – 15:15: Eddy influences on the Hadley Cell (Birner)

15:15 – 15:30: Break

15:30 – 16:00: Aerosol-induced SH Hadley cell contraction and its uncertainty (Son)

16:00 – 16:30: Understanding the timescales of the tropospheric circulation response to abrupt CO2 forcing in the Southern Hemisphere: Seasonality and the role of the stratosphere (Grise)

16:30 – 17:00: Dryland expansion and poleward shift of Hadley cell (Fu)

17:00 – 18:00: Reception in cafeteria

**Tuesday March 14th**

***Tropical width metrics: definitions, methodological considerations***

 8:30 – 9:00: Tropical width metrics overview and temporal resolution issues (S. Davis)

 9:00 – 9:30: Horizontal resolution issues related to tropical width (N. Davis)

 9:30 – 10:00: Vertical resolution issues related to tropopause-based metrics (Birner)

10:00 – 10:30: Break

10:30 – 11:00: Validity, reliability, and consistency of regional tropical circulation metrics (Staten)

11:00 – 12:00: Discussion of tropical width definitions and methodologies

12:00 – 14:00: Lunch and personal work time

***Observational-based tropical width metrics***

14:00 – 14:30: Observational metrics of stratospheric width changes (Rosenlof)

14:30 – 15:00: Determination of the positions of the stratospheric subtropical transport barriers from satellite data (Stiller)

15:00 – 15:30: Stratospheric ozone-based measurements of tropical width (Davis)

15:30 – 15:45: Break

16:00 – 16:30: Stratospheric temperature and OLR-based metrics (Fu)

16:45 – 17:30: Discussion: Are we content with the metrics that have been discussed/used in the literature? What are the pitfalls? How might we inform future studies?

 19:30 - : Group dinner at Restaurant Harmonie (<http://www.harmonie.ch/>)

**Wed March 15:**

***Tropical width metrics: interrelationships***

 9:00 – 9:30: Contrasting upper and lower atmospheric metrics of tropical expansion in the Southern Hemisphere (Waugh)

 9:30 – 10:00: An Intercomparison of Tropical Belt Metrics (N. Davis)

10:00 – 10:30: How do zonal mean tropical width metrics relate to surface climate quantities? (Maycock)

10:30 – 10:45: Break

10:45 – 12:00: Discussion: Do we fully understand relationships between metrics? Do we agree on a subset of metrics that capture tropical width variability?

12:00 – 14:00: Lunch and personal work time

***Discussion of modeling resources***

14:00 – 14:30: Discussion of the UKCA model and idealized modeling capabilities (Maycock/Ming)

14:30 – 15:00: Discussion of available model simulations with EMAC (Garny)

15:00 – 15:30: Discussion of available GEOSCCM runs (Waugh)

15:30 – 16:00: Break

16:00 – 17:30: Discussion of whether we need to do new model simulations

**Thurs March 16:**

 9:00 – 12:00: Discussion of “best practices” and preliminary recommendations for a subset of metrics, and future work needed to clarify issues brought up at the meeting.

12:00 – 14:00: Lunch and personal work time

14:00 – 17:30: Planning for potential model simulations and analyses of model output.

**Fri March 17:**

 9:00 – 12:00: Continuation of discussion from Thursday, with possible ad hoc analyses and add-on presentations. Planning goals and timeline for future meetings.

12:00 – 13:30: Lunch

13:30 – 17:00: Focused discussion