

Short summary of the Arctic Cordex workshop, 28-30 Nov 2016, Bergen

Ongoing multi-model analysis

- Finalizing the three ongoing multi-model evaluation studies with the aim to submit papers by summer 2017:

Analysis of temperature extremes (Heidrun, et al.)

Cyclones in the Arctic (Mirseid, et al.)

Assessment of the precipitation skill scores (Muralidhar, et al.)

- Comparison of temperature and precipitation simulations with observations in Svalbard area (Marzena, Tomasz); plan to use more available RCP8.5 simulations and available higher resolution (2.5-5 km) runs for Svalbard

- Sensitivity of Arctic regional climate model projections to a changing vegetation; comparison of RCA/RCA4-GUESS and HIRHAM/HIRHAM-LSM (Adrian, Heidrun, et al.)

- Interesting would be to link the SOM analysis (John) with the analysis of extremes (e.g. temperature, storm events), but no man power available currently

Others

- Participation in the satellite-based multi-model evaluation proposal (Duane Waliser); Annette provided them already the list of available simulations and availability; this is a nice evaluation tool; we wish more clarification: Which variables will be used and why those? What is the test for? We will see if those are the key one for our own scientific agenda. Thus, probably their list will be from this point of view incomplete and only a starting point. Technical/Data Point of Contact is Heidrun, Science/Programmatic Point of Contacts are the Arctic Cordex POCs (Annette, John); we will update everybody if there are any news on this

- Compilation of a list of key variables which we need satellite (and other) data for (based on our science questions)

- Not really a big interest in the CORE Cordex simulations

- No concrete plans for new sets of common simulations currently; CMIP6 GCMs will start in early 2017, RCMs then later, but in the meantime we will try to enlarge the current CMIP5-RCP8.5 downscaling ensemble

- Groups will work hard to get their data at the ESGF archive such that impact (and other) communities have easy access; update on our web site about the availability

- Agreement for need of higher resolution runs: ca. 25 km for the pan-Arctic domain (CCCma, MGO, UQAM, AWI), ca. 15 km for the pan-Arctic domain (DMI, AWI, UniTrier) and ca. 2.5-5 km for small sub-domains (DMI, UniTrier, met.no); focus on dynamical aspects where we expect an added value (e.g. cold air outbreaks, polar lows, extremes)

- We will develop a RCM modeling strategy for MOSAiC (Annette will give an associated talk at the ASSW); group expressed their interest to set up appropriate simulations

- What indices (for extremes) are useful for the stakeholders? Guidance by DMI (Greenland climate indices; Jens, Martin) and Climate Service Centers (Stephanie)

Upcoming conferences of interests

- Next Polar CORDEX meeting, Cambridge, BAS, 18-20 October or 8-10 November, 2017; joint Arctic and Antarctic
- ASSW, Prague, 31 March- 7 April 2017, with a MOSAiC session
- First AC3 Open Science Conference, Bremen 26-28 March 2017 (<http://www.ac3-tr.de/news/1st-ac3-science-conference/>)
- Polar Prediction Workshop, 27-30 March 2017, Bremerhaven (<http://www.polarprediction.net/meetings-calendar/science-workshops/polar-prediction-workshop-2017/>)
- Polar Low conference, 2018; Günther will distribute the announcement if available