

C2SM Newsletter November 2013

Vol. 13

Projections of future climate extremes

Climate extremes leave strong impacts on ecosystems, infrastructure and society. Thus, the question of how extremes change in a future warmer climate is highly relevant. In a study published in Nature Climate Change, C2SM members Erich Fischer, Urs Beyerle and Reto Knutti published projections about the future distribution of heat and precipitation extremes. They found that natural climate variability is the dominant contribution to uncertainty in near-term projections of extremes at the local scale. In consequence, this uncertainty cannot be reduced. However, robust information about changes in climate extremes over the coming decades can be obtained by spatial aggregation.

<http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate2051.html>
<https://www.ethz.ch/en/news-and-events/eth-news/news/2013/11/paths-out-of-uncertainty.html>

Report on Extreme Weather Events in Europe

On December 2nd a new report on extreme weather events will be presented to the European Commission. C2SM community member Erich Fischer contributed to this work as the Swiss representative at the European Academies of Sciences Advisory Council. In comparison to IPCC's report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX), this new report focuses on Europe and incorporates phenomena that have not been widely covered. Specifically, it includes analyses on convective storms, hail, lightening, and cold snaps. The report also provides a background on extreme value statistics, risk analysis, impacts, and adaptation. It can be downloaded here:

<http://www.dnva.no/binfil/download.php?tid=58783>

Hurricanes and climate change

C2SM member Ulrike Lohmann was interviewed by Swiss television on the relationship between hurricane frequency, hurricane intensity and the influence of climate change. Watch the short piece from "10vor10" here:

<http://www.srf.ch/news/international/der-planet-reagiert-auf-die-waerme>

Swiss summer school on land use, land cover and climate

C2SM co-sponsors the 13th International Swiss Climate Summer School 2014. The theme focuses on "linking land use, land cover, and climate". Among the keynote speakers are Jonathan Gregory (Met Office/NCAS), Jonathan Overpeck (U Arizona), Julia Pongratz (MPI Hamburg) and Peter Verburg (U Amsterdam). The summer school is open to young researchers (PhD students and Post-Docs). The deadline for registration is December 20. More information can be found on the website. PhD students of C2SM are strongly encouraged to participate.

http://www.oeschger.unibe.ch/education/summer_school/2014/index_en.html

Airborne observations tighten the atmospheric constraint on greenhouse gas fluxes

The C2SM Special Seminar Series on Greenhouse Gas Fluxes and Sinks hosts a last talk in 2013. Christoph Gerbig (MPI für Biogeochemie, Jena) will give a presentation entitled "Intensive and extensive airborne observations to tighten the atmospheric constraint on greenhouse gas fluxes". It will take place on December 3 at ETH CHN building, room L17.1.

http://www.c2sm.ethz.ch/research/CarboCountCH/C2SM_GHGSeminarSeries_2013.pdf

Technical training in model code development

Thirty scientists from ETH, MeteoSwiss and University of Bern have attended the Technical Training about Good Practices in Code Development organized by C2SM on October 31, 2013. The training provided an overview on key elements for scientific software development. The material of the training is freely available on the Internet (<https://wiki.c2sm.ethz.ch/Wiki/PastTrainings>).

C2SM is planning to organize further trainings and is probing the community's demands for technical training. To contribute, please send your comments and express your needs either by email to Anne Roches (anne.roches@env.ethz.ch) or by adding items directly on the Wiki-page:

<https://wiki.c2sm.ethz.ch/Wiki/TrainingNeeds>.

2nd model release of ECHAM6-HAMMOZ

The developer team recently released the second version of ECHAM6-HAMMOZ. The latest version features size-dependent in-cloud scavenging and orographic cirrus clouds. At the same occasion a jobscrip toolkit is available now for everyone. Find more information here:

<https://redmine.hammoz.ethz.ch/projects/hammoz/wiki/Echam610-ham22-moz09>

https://redmine.hammoz.ethz.ch/projects/hammoz/wiki/4_jobscript_toolkit

CORDEX data available through C2SM

CORDEX coordinates Regional Climate Downscaling for improved regional climate change adaptation and impact assessment. C2SM has started to download data. If you are going to use CORDEX data, please get in touch with Harald von Waldow (harald.vonwaldow@env.ethz.ch) in order to prioritize the downloads according to your needs.

<http://wcrp-cordex.ipsl.jussieu.fr>

Mailing list on available datasets

If you want to stay informed about latest news regarding datasets relevant to the C2SM-community, for example dataset updates, availability of new datasets and of new pre- and post-processing tools, subscribe to the low-traffic newsletter c2sm.data here:

<http://sympa.ethz.ch/sympa/subscribe/c2sm.data>

Taking climate science to the policy arena

C2SM member Andreas Fischlin has been elected by industrialized countries (also known as Annex I countries) as their co-facilitator of the Structured Expert Dialog (SED) of the 2013-2015 Review of the UNFCCC. SED is a new process that serves to bring latest science into the policy arena, IPCC AR5 is widely recognized as a key input for this process. According to the decision made at the last COP18 in Doha, the 2013-2015 Review itself is reviewing the

"adequacy of the long-term global goal in the light of the ultimate objective of the Convention plus the overall progress made towards achieving the long-term global goal, including a consideration of the implementation of the commitments under the Convention". A key question currently addressed is whether the long-term goal should remain to keep mean global warming well below 2°C or whether warming should be limited to 1.5°C relative to preindustrial climate.

http://unfccc.int/science/workstreams/the_2013-2015_review/items/7521.php

Archive of C2SM Newsletters

Did you miss an issue of this newsletter? Past issues of the C2SM Newsletter starting in 2010 are all listed on the registration website. For all emails sent through the Newsletter mailing list, check the archive technical archive and browse through the list:

<http://www.c2sm.ethz.ch/news/letter/>

New members and new Steering Committee for C2SM

C2SM includes 3 new members after the annual Plenary meeting held on November 25th. Paolo Burlando (ETH D-BAUG;

<http://www.ifu.ethz.ch/staff/paolob>) is professor of Hydrology and Water Resources Management, Pierre Mérel (ETH D-USYS;

<http://www.usys.ethz.ch/people/professors/fullprofessors/pmerel/index>

EN) holds the chair of Agricultural Economics, and Anthony Patt (ETH D-USYS; <http://www.hes.ethz.ch/people/apatt>) is leading the Human-Environment Systems Group. We warmly welcome the new members and look forward to fruitful discussions and collaborations. At the same occasion, Tapio Schneider (ETH D-ERDW; <http://www.clidyn.ethz.ch/index.html>) was elected in the Steering Committee of C2SM. He replaces Gerald Haug who had wished to step down from this position. The Steering Committee is deeply grateful to Gerald Haug for his support and work over the past years.

Grazia Frontoso is leaving C2SM for RMS

Core-staff member Grazia Frontoso is leaving C2SM by mid January 2014. She is taking a position of Senior Developer Relations Engineer at Risk Management Solutions (RMS), a leading software provider for the quantification and management of catastrophe risk. At C2SM Grazia has been in charge of the global climate modeling (GCM) activities and was heavily involved in the releases of the global aerosol-climate model ECHAM6-HAMMOZ. The C2SM-community would like to thank Grazia for her tremendous efforts for the center and the model development.

“Dem Klima auf den Puls gefühlt”

C2SM member Reto Knutti gave an overview talk on the findings of IPCC AR5 at Aura, Alte Börse, Zürich. This was a great opportunity to present ETH Climate Science Visuals on three large screens and combine climate science facts with many facettes of visualizations.

<https://vimeo.com/77949479>

Movie of IPCC AR5 headlines

The IPCC has produced a video on its Fifth Assessment Report (AR5). The Working Group I contribution to AR5 is now available, and many C2SM members contributed to it. The other parts of AR5 will be released with the

successive approvals of the other two Working Group contributions and the Synthesis Report in the course of 2014.

<http://www.youtube.com/watch?v=6yiTZm0y1YA>

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