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### **Gambling with the public**

C2SM successfully played «Klimapoker» at Scientifica 2013. At the science fair of ETH Zurich and University of Zurich on August 31st and September 1st, the booth was well frequented by a very interested audience. Thanks to many volunteers and C2SM Chair Nicolas Gruber, there was time for intense interactions with the visitors of all ages and to inform them about the frequency of heatwaves in the present and in a future climate. “It was wonderful to see when the people began to realize how natural variability superimposes itself upon human induced climate change and how this can lead to many years without heatwaves even in a very warm future climate”, says Nicolas Gruber.

<http://www.scientifica.ch/ausstellung/natur-und-umwelt/risiko-klima-verspielen-wir-unsere-zukunft/>

### **IPCC @ ETH**

«ETH-Klimarunde» is taking shape. On October 3rd – a bit less than one week after the official release of the 5th IPCC assessment report in Stockholm – the interested public will have the opportunity to discuss the results with the contributing authors at ETH Hauptgebäude. A series of short talks and a final podium will put the new assessment in a broader context of the interaction of science, the politics and the public in general. Don't forget to register for the 2013 «ETH-Klimarunde» before September 30th.

Programm and registration: <http://www.c2sm.ethz.ch/Klimarunde2013>

### **ETH «KlimaWissen» Newsletter**

ETH Executive Board launched a new newsletter series that aims at informing the public about topics in sustainable development. The first issue is dedicated to climate change. A number of C2SM experts provided the initiative with input knowledge.

[http://blogs.ethz.ch/klimablog/files/2013/08/ETH-KlimaWissen\\_Newsletter\\_Web.pdf](http://blogs.ethz.ch/klimablog/files/2013/08/ETH-KlimaWissen_Newsletter_Web.pdf)

### **C2SM member receives AGU Medal**

9 August 2013 - Sonia Seneviratne, professor at IAC for Land-Climate Dynamics and member of C2SM, has received the 2013 James B. Macelwane Medal of the American Geophysical Union (AGU). The Macelwane Medal is awarded for significant contributions to the geophysical sciences by an outstanding early career scientist.

<http://sites.agu.org/honors/medals-awards/james-b-macelwane/?sub=recipients>

### **Outstanding poster on "Southern Ocean Eddies as Weather Makers"**

C2SM researcher Ivy Frenger received an Outstanding Student Poster (OSP) award at EGU 2013 for her presentation on "Southern Ocean Eddies as Weather Makers".

<http://www.egu.eu/awards-medals/union-osp-award/>

### **Technical Training on Good Practices in Code Development**

C2SM organizes a Technical Training on "Good Practices in Code Development" to take place on October 31, 2013 at ETH. This training will introduce the importance and principles of documentation, coding standards, code versioning and provide basic knowledge about debugging and performance analysis. The Training is open to PhD students, post-docs and technical staff within the C2SM Community. No prior experience in programming is required. Please register no later than October 10, 2013 by sending an email to [anne.roches@env.ethz.ch](mailto:anne.roches@env.ethz.ch)

Program: <http://www.c2sm.ethz.ch/education/GoodPracticesinCodeDevelopment>

### **New project: Modeling of shallow clouds and deep convection over topography**

MeteoSwiss aims to develop an operational version of the COSMO model with a grid resolution of 1 km. C2SM is contributing to this development through a new project funded by MeteoSwiss. At this resolution, thunderstorms are explicitly resolved, while shallow clouds and turbulence are not. Current kilometer-scale simulations show significant biases, typically with too late triggering of deep convection and too strong precipitation. C2SM-community members Steven Böing and Jürg Schmidli will work towards a unified representation of shallow clouds and turbulence and a better representation of resolved deep convection.

[http://www.c2sm.ethz.ch/research/Towards\\_1-kilometer\\_resolution\\_weather\\_and\\_climate\\_simulations/Modeling\\_of\\_shallow\\_clouds\\_and\\_deep\\_convection\\_over\\_topography](http://www.c2sm.ethz.ch/research/Towards_1-kilometer_resolution_weather_and_climate_simulations/Modeling_of_shallow_clouds_and_deep_convection_over_topography)

### **Chemistry-climate modeling supports ozone depletion assessment**

A CCMI (Chemistry-Climate Model Initiative) Science Workshop organized by SPARC (Stratosphere-troposphere Processes and their Role in Climate) was held in Boulder CO (USA) from 14-16 May 2013. CCMI aims to better coordinate modeling activities and to assess scientific questions, particularly using comprehensive chemistry-climate models including both stratospheric and tropospheric chemistry. The 2013 workshop focused on the upcoming CCMI simulations and their analysis, which are partly being carried out in support of the 2014 WMO/UNEP Scientific Assessment of Ozone Depletion. The modeling community is encouraged to get involved through running simulations or contributing to the development of the diagnostic tool.

<http://www.sparc-climate.org/publications/newsletter/> > "No. 41"

<http://www.met.reading.ac.uk/ccmi/>

### **High-resolution weather and climate models with new graphics processors (GPUs)**

The Swiss National Supercomputing Centre (CSCS) is putting a new

supercomputer system in operation. «Piz Daint» will provide additional compute performance and consume less power, as a result of a new hybrid architecture based on graphic processing units (GPU). High-resolution weather and climate models are directly profiting, such as for example the regional weather and climate model COSMO for which a new GPU-based version has been developed in the framework of several projects jointly established between MeteoSwiss, C2SM, and CSCS. In a recently published ETH Life article, Oliver Fuhrer, a senior scientist at MeteoSwiss and C2SM-community member who led the development of the new COSMO version, said that such architecture will provide the opportunity to better quantify the uncertainties inherent to weather forecasts, in particular by increasing the model resolution and the number of simulations.

[http://www.c2sm.ethz.ch/research/High\\_Performance\\_Computing](http://www.c2sm.ethz.ch/research/High_Performance_Computing)

[http://www.ethlife.ethz.ch/archive\\_articles/130911\\_piz\\_daint\\_su/index\\_EN](http://www.ethlife.ethz.ch/archive_articles/130911_piz_daint_su/index_EN)

[http://www.cscs.ch/newsroom/cscs/2013/with\\_piz\\_daint\\_cscs\\_enters\\_the\\_path\\_towards\\_petaflop\\_computing/index.html](http://www.cscs.ch/newsroom/cscs/2013/with_piz_daint_cscs_enters_the_path_towards_petaflop_computing/index.html)

### **Paper: Contrasting response of grassland versus forest carbon and water fluxes to spring drought**

The understanding of the effects of summer drought on ecosystem carbon and water vapour fluxes has recently advanced, the effects of spring drought remain unclear. C2SM researchers from the Institute of Agricultural Sciences recently published a study with measurements from spring 2011 (March–May) that was the warmest and among the driest since the beginning of meteorological measurements in Switzerland. Sebastian Wolf, Werner Eugster, Nina Buchmann and co-authors found that spring phenological development was 11 days earlier in 2011 compared to the mean of 2000–2011 across all sites. Soil moisture related reductions of gross primary productivity (GPP) were found at the lowland grassland sites, where productivity did not recover following grass cuts. In contrast, spring GPP was enhanced at the montane grassland and both forests. Evapotranspiration (ET) was reduced in forests, which also substantially increased their water-use efficiency (WUE) during spring drought, but not in grasslands.

<http://iopscience.iop.org/1748-9326/8/3/035007/article>

### **Paper and dataset: Gridded Alpine precipitation in daily resolution**

MeteoSwiss has developed a gridded analysis of daily precipitation, extending over the entire Alpine region. The dataset is based on measurements at high-resolution rain-gauge networks, encompassing more than 8500 stations from Austria, Croatia, France, Germany, Italy, Slovenia and Switzerland. A detailed description was recently published in International Journal of Climatology lead by C2SM-community members Francesco Isotta and Christoph Frei.

<http://www.meteoswiss.admin.ch/web/de/services/datenportal/gitterdaten/alpineprecip.html>

<http://onlinelibrary.wiley.com/doi/10.1002/joc.3794/abstract>

**Scientific climate policy advice**

Researchers at BOKU (Universität für Bodenkultur) in Vienna recently published a discussion paper entitled «Scientific climate policy advice: An overview of national forms of institutionalization». The paper presented the result of a survey on scientific policy advice in the field of climate change mitigation and adaptation policies, and the main goal was to systematically map and scrutinize different forms of scientific climate policy advice in selected industrialized countries. ProClim and C2SM were prominently cited as key institutions in Switzerland.

[http://www.wiso.boku.ac.at/fileadmin/\\_H73/H732/TEMP/InFER\\_DP\\_13\\_2\\_Scientific\\_climate\\_policy\\_advice.pdf](http://www.wiso.boku.ac.at/fileadmin/_H73/H732/TEMP/InFER_DP_13_2_Scientific_climate_policy_advice.pdf)