

## CLM-Assembly

September 18 – 21, 2018

Karlsruhe, Germany

Conference proceedings

Gerd Schädler, Hendrik Feldmann, Hans Schipper (eds.)

INSTITUTE OF METEOROLOGY AND CLIMATE RESEARCH  
SOUTH GERMAN CLIMATE OFFICE



Climate Limited-area  
Modelling Community



*Cover photo: Lydia Albrecht*

From September 18 to 21, the 13th General Assembly of the CLM community (<https://www.clm-community.eu/>) took place at Campus South of the Karlsruhe Institute of Technology. Nearly 60 international participants learned over these four days about the latest results and developments of the COSMO-CLM and ICON model systems in 23 plenary lectures and 21 posters. The premises in building 10.81 (“altes Ingenieurgebäude”) also offered the opportunity to engage in parallel sessions in in-depth discussions in the individual working groups of the CLM community.

The present conference proceedings hold all the abstracts of the oral and poster presentations during the assembly and gives a good insight in the broad work and applications of the CLM Community.

Herewith, the organizing team would like to sincerely thank

- the participants of the conference,
- the CLM working group leaders,
- the scientific advisory board,
- the catering service,
- the janitors of building 10.81,
- the student assistants, and
- all others involved in organizing the assembly.

Local organizing team

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Department Troposphere Research  
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# **The effect of coupled marginal seas on precipitation extremes and heat waves in 20th century CCLM simulation**

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Regional atmosphere-only (CCLM) and coupled ocean-atmosphere (CCLM-NEMO) model simulations are analysed together with the driving global data and observations to investigate the added value of regionalisation and coupling. Two analyses are carried out: The first focuses on the multi-decadal variability of precipitation extremes in the 20th century. For this,

the Standardized Precipitation Index (SPI) is calculated and compared between the simulations and observations. The second focuses on the detection of heat waves. For this, maximum temperature coming from model simulations is compared to daily data provided by some DWD-stations during a period of 100 years.

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### Publisher

President Professor Dr.-Ing. Holger Hanselka  
Karlsruher Institut für Technologie (KIT)  
Kaiserstraße 12  
76131 Karlsruhe  
[www.kit.edu](http://www.kit.edu)

