ICCARUS 2023

DANIEL RIEGER AND CHRISTIAN STEGER

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ICCARUS (ICON/COSMO/CLM/ART User Seminar) is an international conference that brings together users and developers of the COSMO and ICON numerical models. Over the last two decades ICCARUS has become a hub for the exchange of information on model development, physical parameterizations, data assimilation, ensemble generation, verification and applications of the model systems. As such, it provides an important link between COSMO, the CLM community, and ICON and ART developers.

The 24th edition of ICCARUS took place from 6 - 9 March 2023 at the DWD headquarters in Offenbach, Germany. The conference was planned and executed for the first time as a hybrid event by the organization team consisting of Anja Thomas, Daniel Egerer, Bernd Kress, Daniel Rieger, and Christian Steger. For this, the proven tools Webex, Gather.Town and Nextcloud could be used.

After greetings by DWD President Prof. Gerhard Adrian and the head of DWD's research and development business unit, Prof. Sarah Jones, the first three days of the conference featured scientific presentations in plenary sessions. These could be followed and given on-site as well as online. The poster session then took place entirely online on Thursday 9 March. There was the possibility to present the posters in short presentations in the plenum on Monday and Tuesday. The working group meetings of COSMO, the CLM and the ICON community, which used to be held during the ICCARUS week in Offenbach as well, were now held as virtual meetings in the weeks before and after. The only element of the conference which was exclusively reserved for on-site participants was the Icebreaker event, which took place following the scientific program on Tuesday evening.

A total of 286 people were registered for ICCARUS 2023, of which 110 were registered for on-site participation. Participants submitted 88 papers, of which 42 were oral presentations and 46 were poster presentations. The plenary presentations were organized into a total of 14 thematic sections. These included "Aerosol and Clouds", "Coupled Simulations", "Predictability", "Boundary Layer and Soil", "Data Assimilation", "Clouds and Convection", "SINFONY", "Model Development", "Radiation", "Dynamic and Numerical", "Aerosol", "Evaluation", "Dynamic and Gravity Waves" and "Clouds". For the division of the thematic blocks, the keyword system introduced in the previous year again proved helpful for the submission of contributions.

The program also included 5 keynote talks, including an invited talk by Stephanie Johnson (ECMWF) on ECMWF's seasonal forecasting system. The other four keynote talks were given by colleagues of DWD and dealt with various aspects of the ICON model system. Roland Potthast gave a general overview of ongoing work and plans with ICON. Jan Keller presented the regional re-analysis generated by DWD in more detail. Günther Zängl explained the major updates in ICON for weather forecasting, as well as the related plans for 2023. Barbara Früh provided information on the work for using ICON on climate time scales.

The programme, the book of abstracts, and many presentations and posters can be found on the https://www.dwd.de/EN/specialusers/research_education/seminar/2023/iccarus2023/iccarus2023_en_node.html

Next year ICCARUS will celebrate its 25th anniversary and will be held during the week of March 4-9, 2024.



Figure 1: ICCARUS 2023 Logo (Source: Nora Leps)



Figure 2: Group picture