Newsletter

Contents

New natESM Process Coordinator

My name is Iris Ehlert, and since September I have been coordinating the processes around the development of our national Earth system modeling strategy and have been consulting the natESM steering group. I also lead the natESM support team at DKRZ, which is being built exclusively for the natESM community (i.e., for you); all of us are here to help you develop and run the sprints.

Communication issues, bridging the interests of different user groups, and coordinating with and consulting decision makers were already in focus during my previous position at BSH. As deputy head of the unit "Science Management and Communication" and as national coordinator of the Copernicus marine environment monitoring services, I was responsible for further developing the exchange with users and for consulting decision-makers at the national and European level. I will offer such a communication and consultation service to the natESM community as well, and I look forward to further developing our common Earth system modeling strategy with you. Please feel free to contact me at any time with suggestions and questions in the context of natESM!

Changes in steering committee

We are pleased to inform you that since last September Anja Schmidt (DLR, LMU) has taken on the role as a co-chair and now chairs the steering group together with Jochem Marotzke (MPI-M).

Prof. Dr. Anja Schmidt (Co-Chair, DLR and LMU): Specializes in volcanic eruptions and their impact on the atmosphere.

Anja has been a Professor of Climate Modelling at the Ludwig Maximilian University of Munich and Head of the Earth System Modelling Department at the German Aerospace Centre in Oberpfaffenhofen since January 2022. Prior to her return to Germany, she was a Lecturer at the University of Cambridge and held a tenure-track position at the

University of Leeds in the UK where, in 2011, she gained her PhD degree in Earth system modelling of tropospheric volcanic aerosol.

Her main research interests are at the interface between climate modelling and volcanology, with a focus on volcanic aerosol effects on climate, human health, and aviation.
In this video, which was created when Anja received the Blavatnik Award for "Developing and applying state-of-the-art climate models that revolutionized our understanding of the role of volcanic eruptions in climate and air quality", you can discover a bit more about Anja.

Joachim Biercamp is about to retire completely and has handed over his scepter to Hendryk Bockelmann, who now represents DKRZ in the steering group.

Dr. Hendryk Bockelmann (DKRZ): Focuses on high-performance computing and data management for climate modeling.

Hendryk heads the Applications Department at DKRZ. We thank Joachim for his years of commitment to natESM and wish him all the best in his new phase of life.

New members in support team

We are happy to announce that our support team has grown by two Research Software Engineers since last October. Wilton Jaciel Loch supports our team at DKRZ in Hamburg and has been responsible for the FESOM sprint since November.

Jörg Benke supports our team at JSC in Jülich and has taken over the ParFlow sprint in December.

Our third RSE Enrico Degregori has already been working for natESM since April 22 and recently finished the ICON-mHM-YAC sprint. A fourth member of the support team has yet to be found.

Community workshop

After more than three years, we look forward to welcoming you to the next on-site community workshop in Berlin.

During the workshop, we will revive the joint development of our Earth system modeling strategy, and we will present what we have learned from the sprints as important parts of the strategy so far. In both plenary discussions and various working groups, we will discuss the different challenges and questions we face during the development of a common strategy.

For example, we will discuss what scientific insights you and the community could gain by coupling your model or model components to core components such as ICON-A, FESOM, or ICON-O. How do we want to deal with different interface requirements (e.g., spatiotemporal resolution and/or the same variables in different models)? What components – besides atmosphere, ocean, sea ice, and land – play an important role in natESM (e.g., land ice)? What do we need to do collectively to efficiently pool our resources and institutional expertise and make them available to all members of the natESM community?

Personal exchange is very important to us after this three-year drought and essential for workshops like this. We therefore kindly ask for your understanding that we do not offer streaming of or online participation in the event.

Please register here no later than 23 February 23.

A preliminary program and additional information like hotel recommendations you can find on our Workshop-Website.

Sprint News

There were some suggestions from the community to improve our template for the sprint applications. Thanks go to everyone who has already given us feedback. We have implemented these suggestions. We are now making the new template available to you as a Word document, so that you can also insert a graphic, for example, if necessary. You can find the template on our sprint-application website.

Please feel free to send us further suggestions for improvement to info@nat-esm.de. To be able to improve our service, your feedback is essential.

Model	Task	Support time	Start date	Status
ICON-ART	Analysis of ART code for GPU porting	8 weeks	14.4.22	Closed Documentation
ICON-mHM-YAC	Online coupling mHM into ICON using YAC	6 months	12.7.22	Closing phase Documentation started
FESOM	Port FESOM 2.1 to JUWELS booster and Levante-GPU	6 months	8.11.22	Running
ParFlow	Port ParFlow to AMD GPUs, Inspection of RAPID Memory Manager and Hipification, Performance Analysis	5 months	1.12.22	Running
MESSy	Optimize the data transfers between host (CPU) and device (GPU)	4 months		KickOff planned for 19.01.
ESMValTool	Updating remaining non-lazy preprocessor functions to be memory efficient AND updating ESMValCore	6 months		Waiting