



natESM Summer School 2026

Earth System Modelling in a Changing Climate
13–19 September 2026 | Kiel, Germany

Sunday, 13 September — Arrival & Welcome

Time	Session / Details	Speaker / Lead
17:00	Opening & Welcome	Iris Ehlert & Summer School team
	Getting to know each other Short interactive session to meet the other participants	All
17:30	Opening Keynote <i>Climate Variability and Change – Ocean Memory and Ocean Circulation</i>	Jochem Marotzke
18:30	Dinner & informal get-together	

Monday, 14 September — From Earth System Models to Your First Experiment

Time	Session / Details	Speaker / Lead
09:00	How Earth System Models Work • discussion	Vera Schemann
09:45	Earth System Modelling in an Increasingly Complex Computing World – The natESM Idea • discussion	Hendryk Bockelmann
10:15	HPC Environment • discussion	Jan Frederik Engels
10:45	Break	
11:15	Introduction to ICON / CMIP7	Wolfgang Müller
11:30	Exploring Scientific Questions Introduction to thematic areas and possible research questions	Vera Schemann & Kerstin Hartung
12:05	First Group Exploration Discussing potential research questions and developing hypotheses in small groups	Students & mentors
12:30	Lunch	
13:30	Introduction to the Experiments Introduction to the Summer School configuration and workflow	Wilton Jaciel Loch & Julia Duras
14:00	Hands-on: Working with the natESM Configuration on Levante • Login and getting familiar with Levante • Getting the source code and building • Setting up and running a test experiment • Checking the test results	RSEs & mentors

Time	Session / Details	Speaker / Lead
~16:00	Project Group Formation Forming groups of 3–4 around shared scientific questions, hypotheses and interests	Vera Schemann & Kerstin Hartung
Afterwards	Starting Your Group Experiment • Setting up and running the group experiment • Visualizing data and generating plots • Sharing and initial checking of results	Project groups, RSEs & mentors
18:00	Dinner	

Tuesday, 15 September — Land, Evaluation & Project Work

Time	Session / Details	Speaker / Lead
09:00	ESMValTool <i>[final title tbd]</i> • discussion	Birgit Hassler (DLR)
10:00	The Land Component <i>[final title tbd]</i> • discussion	Julia Nabel (MPI-BGC) & Tobias Stacke (MPI-M)
11:00	Project Work Applying insights from the morning sessions and continuing the group experiments	Project groups & mentors
12:30	Lunch	
Afternoon	Project Work Analysis, experimentation and exchange with mentors	Project groups & mentors
18:00	Dinner	
Evening	Tech Corner Short introductions to useful tools and interfaces: • Git – Wilton Jaciel Loch (DKRZ) • ComIn – Kerstin Hartung (DLR) • YAC – Benjamin Rodenberg (DKRZ) • mkexp – Julia Duras (DKRZ)	Wilton Jaciel Loch, Kerstin Hartung, Benjamin Rodenberg & Julia Duras

Wednesday, 16 September — Atmosphere, Impact & Social Day

Time	Session / Details	Speaker / Lead
09:00	Keynote <i>From Climate to Climate Impact Models: The Step Towards Societal Relevance and Measures of Actions</i> • discussion	Sabine Attinger (UFZ)
10:00	The Atmosphere Component <i>Climate Modelling, Forecast and Projections</i> • discussion	Barbara Früh (DWD)
11:00	Project Work Continuing analyses and applying insights from the morning sessions	Project groups & mentors
13:00	Packed Lunch / Transition to Social Day Packed lunches can be prepared at breakfast; remaining time can also be used for project work	
Afternoon	Social Day – Exploring the Schwentine Approx. 3-hour boat tour; canoes, kayaks and rowing boats available	All
Afterwards	Dinner at the restaurant	

Time	Session / Details	Speaker / Lead
Evening	Career Discussion Evening <i>Different Paths in Earth System</i> <i>Modelling</i> Informal conversations about career paths, institutions and working environments	Lecturers, RSEs & mentors

Thursday, 17 September — Ocean & Project Work

Time	Session / Details	Speaker / Lead
09:00	ICON-Ocean <i>[final title tbd]</i>	Nils Brüggemann (ZMT)
09:45	FESOM <i>[final title tbd]</i>	Dmitry Sidorenko (AWI)
10:30	Ocean Discussion Joint discussion and questions	Nils Brüggemann & Dmitry Sidorenko
~11:00	Project Work Applying insights and continuing experiments and analyses	Project groups & mentors
12:30	Lunch	
Afternoon	Project Work Experiments, analysis and preparation of results	Project groups & mentors
18:00	Dinner	
Evening	Movie Night <i>Chasing Ice</i>	

Friday, 18 September — Bringing It All Together

Time	Session / Details	Speaker / Lead
09:00	Final Project Work • Finalizing analyses • Interpreting results • Preparing project presentations	Project groups & mentors
12:30	Lunch	
14:30	Project Presentations & Discussion Each group presents: • research question • hypothesis • approach • results • what worked / what did not • lessons learned	All project groups
Afterwards	Summer School Wrap-up Reflections, feedback & closing	Summer School team
Evening	Farewell Dinner & Informal Final Evening	All

Saturday, 19 September — Breakfast & Departure