



# Online ESM Workshop 2021

1-2 March 2021  
Online

**Monday, March 1<sup>st</sup>, 2021**

Time	Session	Chair
10:30 – 11:15	<b>Session I: Welcome and Introduction</b> <ul style="list-style-type: none"> <li>• ESM: Overview and Updates – Thomas Jung, AWI (20min)</li> <li>• JL-ExaESM – Martin Schultz, FZJ (15min)</li> <li>• AG Großrechner – Daniela Jacob, GERICS (10min)</li> </ul>	Thomas Jung (AWI)
11:15 – 11:30	Coffee Break	
11:30 – 12:30	<b>Session II: Project Highlights I</b> <p>WP1: Earth System Model Development</p> <ul style="list-style-type: none"> <li>• ESM Tools (Miguel Andrés-Martinez, AWI)</li> <li>• Aerosol interactions with ice clouds (Mattia Righi, DLR)</li> </ul> <p>WP2: Earth System Data Assimilation</p> <ul style="list-style-type: none"> <li>• How can AI improve ESM? (Christopher Irrgang, Jan Saynisch-Wagner, Maik Thomas, GFZ)</li> </ul> <p>WP3: Frontier Simulations</p> <ul style="list-style-type: none"> <li>• First results of atmospheric simulation on the ESM Partition (Domenico Taraborrelli, FZJ)</li> <li>• Langrangian tracer transport in Asian Summer Monsoon (ASM) (Sabine Brinkop, DLR; contributions by FZJ)</li> </ul>	Catrin Meyer (FZJ)
12:30 – 13:30	Lunch	
13:30 – 15:00	<b>Session III: Project Highlights II</b> <p>WP1: Earth System Model Development</p> <ul style="list-style-type: none"> <li>• LPJ-GUESS/LSM: a land surface model for coupled ecosystem-climate experiments (David Martin Belda, KIT)</li> <li>• The Flexible Ocean and Climate Infrastructure – FOCI (Sebastian Wahl, GEOMAR)</li> <li>• Seamless Modelling with ICON-ART (Peter Braesike, KIT)</li> </ul> <p>WP2: Earth System Data Assimilation</p> <ul style="list-style-type: none"> <li>• s (Harrie-Jan Hendrick-Franssen, Ching-Pui Hungm Johannes Keller, Stefan Poll, Stefan Kollet, FZJ; Tobias Finn, Uni Hamburg; Shaoning Lv, Uni Bonn)</li> <li>• Impacts of the data assimilation in the coupled model system on volume and heat budget estimates for the North Sea (W. Chen, J. Schulz-Stelleneth, S. Grayek, and J. Staneva, HZG)</li> </ul> <p>WP3: Frontier Simulations</p> <ul style="list-style-type: none"> <li>• Modelling of subsurface systems (solid earth) in ESM - improvement in the resolved physics coupling and uncertainties quantification via AI methods (Mauro Cacace, D. Degen, Leni Scheck-Wenderoth, GFZ)</li> <li>• Terrestrial Frontier Simulations (Carina Furusho Percot, Carl Hartick, FZJ)</li> </ul>	Stefan Kollet (FZJ)

	<ul style="list-style-type: none"> <li>Virtual Campaigns - MOSES Müglitz (Olaf Kolditz, UFZ) / Frontier Simulations with mHM (Luis Samaniego, UFZ)</li> </ul> <p>WP5 – Earth System Model Diagnosis</p> <ul style="list-style-type: none"> <li>Virtual field campaigns (Survachal Cheedela, AWI)</li> </ul>	
15:00 – 15:30	Coffee Break	
15:30 – 17:00	<p><b>Breakout Sessions I</b></p> <p><i>Guiding questions: What worked well? Where did we fall short? What will be the next steps? Where shall we put priorities? Where can we make a difference through collaboration? What should be the role of ESM in PoF-IV?</i></p> <ul style="list-style-type: none"> <li>WP1: Earth System Model Development</li> <li>WP2: Earth System Data Assimilation</li> <li>WP3: Frontier Simulations</li> <li>WP4: Strategic Development (incl. national strategy)</li> <li>WP5: Earth System Model Diagnosis</li> </ul>	WP and TT leads
17:00 – 17:15	Conclusion Day 1	Thomas Jung (AWI)
17:15 – 18:15	<b>Icebreaker</b>	

## Tuesday, March 2nd 2021

Time	Session	Chair
9:00 – 10:00	<p><b>Breakout Sessions II</b></p> <p>Continued from day 1.</p>	WP and TT leads
10:00 – 10:30	Coffee Break	
10:30 – 11:30	<p><b>Report from Breakout Sessions</b></p> <ul style="list-style-type: none"> <li>WP1: Earth System Model Development</li> <li>WP2: Earth System Data Assimilation</li> <li>WP3: Frontier Simulations</li> <li>WP4: Strategic Development</li> <li>WP5: Earth System Model Diagnosis</li> </ul>	Leni Scheck-Wenderoth (GFZ)
11:30 – 11:45	Final Discussion and Closure	Thomas Jung (AWI)
11:45 – 12:00	Health Break	
12:00 – 13:00	<b>ESM Steering Group Meeting (closed session)</b>	