



**PAL  
MOD**

GERMAN  
CLIMATE  
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INITIATIVE

## Newsletter 06 / 2021

**Dear PalMod members,**

it was great to see so many of you online at the PalMod **General Assembly** end of May! We counted more than 90 participants, had 12 great talks on day 1 and 38 “posters” in the morning session of day 2. I received the feedback, that the poster session was very useful but too short. For those who could not attend the GA and for those who want to see the talks again, please find below the list with the links to the recordings.

Moreover, thank you for the fruitful discussions in the BOGs – we will start from there when structuring the proposal for the PalMod Phase III.

### **SAVE THE DATE**

**Monday, 07.06 2021, from 14 – 16:30**

#### **Antarctis Focus Group Workshop I**

As a follow-up of our recent Antarctic Focus Group kick-off meeting, we invite you to the PalMod Antarctic Focus Group Workshop I. The task of this meeting is to discuss common aspects of Antarctica which are investigated in different working groups and packages inside PalMod.

#### **Subtopics and discussion lead:**

- ST1. Surface mass balance (Ute Krebs-Kanzow)
- ST2. AIS bedrock characteristics (Torsten Albrecht)
- ST3. Sub-shelf melting and ice-ocean interaction (Hu Yang)
- ST4. Ocean (Torge Martin)

#### **Schedule of the workshop**

- 14:00 - 14:15 Introduction
- 14:15 - 15:00 1st BOG, ST1 and ST3

15:00 - 15:10 Short break

15:10 - 15:55 2nd BOG, ST2 and ST4

15:55 - 16:00 Short break

16:00 - 16:30 Summaries of BOGs, discussion of next steps, role of Antarctica in Phase 3

To get the connection details, please contact Volker Klemann, Ricarda Winkelmann or Torge Martin.

## Update on Milestones and Deliverables

### Updated traffic lights, 02.06.2021

WP	WG	Due To	DAYS	⬇️	Responsible	Task
WG3	WP3.3 M1	30.06.21	28	🟡	Marum, AWI-B	Transient simulations including water isotopes for an abrupt climate change event during MIS3 and Termination I set up and ready to run
WG3	WP3.1 M3	30.06.21	28	🟡	Marum	Development of age modelling strategies for time series without radiocarbon age control
WG3	WP3.3 M3	30.03.21	-64	🔴	AWI	Spectral estimation methods established and tested
WG3	WP3.3 D4	30.03.21	-64	🔴	AWI-P	Documentation of the spectral estimation method accounting for proxy biases
WG2	WP2.1 M1	30.06.21	28	🟡	AWI	Adjust REcoM model for simulating prognostic atmospheric CO2 concentrations, including fluxes from weathering, and volcanism.
WG2	WP2.1 M2	30.06.21	28	🟡	AWI	Include iron sources from marine shelves, rivers, hydrothermal activity and sea ice in REcoM
WG2	WP2.3 M1	30.06.21	28	🟡	MPI-M	Transient deglaciation experiment with improved atmospheric sink component performed, publication draft
WG2	WP2.1 M4	30.06.21	28	🟡	CAU	Transient effect of aeolian dust deposition changes and of temperature and sea level variations on ballasting implemented in HAMOCC
WG2	WP2.2 M1	30.06.21	28	🟡	MPI	The development of vegetation and terrestrial carbon on exposed shelves and the leading factors for this development are figured out
WG2	WP2.2 M3	30.06.21	28	🟡	PIK	Quantification of carbon cycle feedbacks operating through shelf processes during glacial inception and deglaciation with CLIMBER-X
WG2	WP2.3 M5	30.06.21	28	🟡	MPI-C	Analysis of methane sink in transient simulations, publication draft
WG2	WP2.3 D3	30.06.21	28	🟡	MPI-C	Publication on transient deglaciation experiments with methane sinks submitted
WG2	WP2.1 M5	30.06.21	28	🟡	MARUM	Transient simulations including marine carbon isotopes for an abrupt climate change event during MIS3 and Termination I set up in CESM and ready to run
CC	CC2 D14	30.06.21	28	🟡	GEOMAR	Statistical reconstruction of volcanic forcing for the last 130,000 years
CC	CC2 M5	30.04.21	-33	🔴	HZG	Publication of initial standardized proxy data
CC	CC2 M10	30.06.21	28	🟡	U Bonn	Bayesian framework set up and examples of probabilistic evaluations of temperature and precipitation in time slice simulations against pollen synthesis / macro fossils available
CC	CC2 D8	30.06.21	28	🟡	Uni Bonn	Plugin for Bayesian framework of spatial evaluation (time slices) documented and ready for integration in toolbox
CC	CC2 M14	30.06.21	28	🟡	UHD	Spatio-temporal plot workflow for the model-data comparison toolbox facilitating visual browsing of results
CC	CC2 M18	30.06.21	28	🟡	GEOMAR	Volcanic forcing data files constructed and tested

If you meet a milestones or deliverable let me know, so I can remove it from the list

If you have to shift a milestones or deliverables, please contact me ([kfieg@geomar.de](mailto:kfieg@geomar.de))

## Update on use of DKRZ resources in Q2

DKRZ Project	[n*h] Granted for 2021	[n*h] Used by 02.06.2021*	[n*h] to use until cut end of June (= 1/2 of granted)
0989 / WG1	1.063.206	545.341	- 13.738 nh
1030 / WG2	779.150	271.961	117.614 nh
1029 / WG3	151.200	71.604	3996 nh
CC / 0993	151.300	48.568	27.082 nh

\* incl. reallocated / expired resources

🟢	No resource cut expected
🟡	No or small cut expected
🔴	Risk of cut expected

## List with links to the talks of the GA

**Intro:** M. Latif: <https://nextcloud.dkrz.de/s/9EZapLeonyH8aNZ>

**CC1** Intro H. Bockelmann: <https://nextcloud.dkrz.de/s/by5HomanZYQpiak>

- T. Extier (MPI-M): Oceanic outgassing driven by terrestrial organic matter fluxes in MPI- ESM during the last deglaciation  
<https://nextcloud.dkrz.de/s/FGjpLYXQXSNJz5r>
- J.P Baudouin (Uni Heidelberg): "Building model-data frameworks to investigate climate variability"  
<https://nextcloud.dkrz.de/s/zGCsB6iJeNM6W6t>

**WG3** Intro S. Mulitza: <https://nextcloud.dkrz.de/s/pJArCzCJ5E5283R>

- A. Dolman (AWI): Accounting for habitat effects leads to improved agreement among PalMod reconstructions of LGM SST change.  
<https://nextcloud.dkrz.de/s/6KQEPskcAHgGWGZ>
- P. Meister (AWI): Compilation of lake sediment  $\delta^{18}\text{O}_{\text{Si}}$  records linked to pollen-based climate reconstructions.  
<https://nextcloud.dkrz.de/s/7p6HG8z82WYy2Mg>
- T. Kovács (MARUM): Evaluation of water isotope simulations of the LGM  
<https://nextcloud.dkrz.de/s/jAmcPPF5x9YnxEM>

**WG2** Intro V. Brovkin: <https://nextcloud.dkrz.de/s/nej8SQfMxkwMS4B>

- T. Kurahashi-Nakamura (MARUM): LGM ocean states constrained by the atmospheric  $\text{pCO}_2$ : simulations with CESM  
<https://nextcloud.dkrz.de/s/2oiZ6azqsHogfbN>
- B. Liu (MPI-M): Towards constraining deglacial variations of ocean biogeochemistry: insights from a transient MPI-ESM simulation  
<https://nextcloud.dkrz.de/s/ETxSioodX4pjCjd>
- M. Willeit (PIK): Transient glacial inception simulations with CLIMBER-X  
<https://nextcloud.dkrz.de/s/Hr4tGGsFptZSItF>

**WG1** Intro M. Prange: <https://nextcloud.dkrz.de/s/adWaEKNzPBczaf2>

- L. Niu (AWI): Mechanisms of Ice Sheet related freshwater surges  
<https://nextcloud.dkrz.de/s/wcbxCszbGjDikx8>
- C. Schannwell (MPI-M): Climate forcing as important driver in controlling the synchronicity of ice-sheet surges from the Laurentide ice sheet  
<https://nextcloud.dkrz.de/s/Qxw332jHkmwDrnW>
- D. Latinovic (MARUM): Simulations of the Last Glacial Inception  
<https://nextcloud.dkrz.de/s/SAsKG5WXk92b2CT>
- T. Albrecht (PIK): Effects of ice-ocean-solid-earth interaction on the long-term stability of the Antarctic Ice Sheet  
<https://nextcloud.dkrz.de/s/i5TMeQMySc4QoPt>

### • More useful news and links



The protocol of the past Steering Group Meetings can be found:

<https://www.palmod.de/group/palmod/protocols>

For general details on the PalMod II project see <https://palmod.de>