Newsletter April 2023

Dear PalMod members and friends,

as you all know, PalMod is in a state of transition, in the sense that first subprojects have already finished their PalMod Phase II and are waiting for the start of the third project phase, which hopefully will begin in June. Other subprojects, however, are continuing their work in Phase II for up to one more year.

In order to ease the transition from Phase II to Phase III and introduce the new colleagues of Phase III, a General Assembly for all PalMod members will be held in September in Bremerhaven.

The agenda is already being planned and will be made available on the PalMod website (www.palmod.de) as soon as it is finalized and then will be presented in detail in the May Newsletter. Here you will find first information below.

Further content of the Newsletter is the usual update on the milestones and deliverables, and an overview on the use of DKRZ resources in Q1/2023.

Two more requests from my side: please let me know about your accepted papers with PalMod participation (PalMod funded or PalMod in-kind contribution), and I would appreciate a digital copy of your interim report 2022 or your final report on PalMod Phase II.

First corner stones of the General Assembly

- **Date**: Wed. 27. Sept. 2023 11h to Fri. 29. Sept. 2023 13h
- **Venue**: AWI Bremerhaven, Building H (Klussmannstr.3)

Please note: Bremerhaven is a popular destination in September, so finding a hotel room can be a problem if you don't book in time.
We decided against a contingent booking of rooms, because it was not possible to pre-book rooms for prices in the range of the discounted rates according to the TMS list.
So, we ask all participants to book their hotel rooms soon and mention the TMS booking code, if there is one available for your institution (ask your administration).

We recommend the following hotels:

B&B Hotel, Barkhausenstr. 3
https://www.hotel-bb.com/de/hotel/bremerhaven
Nordsee Hotel City, Theodor-Heuss Platz 14 – 18,
https://www.nordseehotels.com/city/
Nordsee Hotel Fischereihafen, Am Schaufenster 7,
https://www.nordseehotels.com/fischereihafen
Hotel am Theaterplatz, Schleswiger Straße 3,
https://www.hotel-am-theaterplatz.de/
City Hotel, Schillerstraße 8,
https://city-hotel-bremerhaven.de/

Update on Milestones and Deliverables (Status 03.04.2023)

It is very possible, and in the case of some severely overdue M&D, very likely that they tuned out as not being useful. If this is the case, please let me know briefly and I will remove them from the list and write a short note.

Deadlines between 06/21 – 06/22

WP	WG	Due To	DAYS	Responsible	Task
WG2	WP2.2 M2	30.06.22	-277	MPI	Biogeophysical and biogeochemical feedbacks between terrestrial biosphere and climate are assessed
WG3	WP3.1 D4	30.06.22	-277	Marum	Global synthesis of planktonic foraminifera abundance time series spanning 130,000 years
WG3	WP3.1 M4	30.06.22	-277	Marum	Finalise synthesis of planktonic foraminifera abundance time series
WG3	WP3.2 M6	30.06.22	-277	AWI	Vegetation dynamics analysed including model-proxy comparison
WG3	WP3.2 M9	30.06.22	-277	MUN	Inclusion of some of the major last glacial cycle ice caps
WG3	WP3.3 D3	30.06.22	-277	Marum, AWI-B	Transient simulations including water isotopes for last glacial inception
CC	CC2 M18	30.03.22	-369	GEOMAR	Volcanic forcing data files constructed and tested
WG2	WP2.2 M6	30.03.22	-369	UNI HH	Manuscript about the role of shelf weathering on land-ocean biogeochemical matter fluxes
WG3	WP3.1 D2	30.03.22	-369	Marum	Extended marine paleoclimate data synthesis
WG3	WP3.1 M2	30.03.22	-369	Marum	Updated marine proxy synthesis that includes temperature reconstructions without benthic δ18O chronology
WG3	WP3.2 D2	30.03.22	-369	GFZ	Update of the PALIM data-base to integrate chronological links to the marine data-base
WG3	WP3.2 M1	30.03.22	-369	GFZ	Synchronization of lacustrine and marine data-bases
WG3	WP3.2 M3	30.03.22	-369	GFZ	Improved proxy-system models for key climate proxies including varve thickness data
WG3	WP3.2 M8	30.03.22	-369	MUN	Revised calibrated distribution of last glacial cycle ice sheet chronologies and associated 1D regional Earth models
WG3	WP3.3 M2	30.03.22	-369	Marum, AWI-B	Transient simulations of the Holocene and last glacial inception set up and ready to run
WG2	WP2.2 M5	30.12.21	-459	UNI HH	Mapping of the geochemical and lithological characteristics of the continental shelves
WG2	WP2.3 M5	30.11.21	-489	MPI-C	Analysis of methane sink in transient simulations, publication draf
WG2	WP2.3 D3	30.11.21	-489	MPI-C	Publication on transient deglaciation experiments with methane sinks submitted
WG2	WP2.1 M1	30.06.21	-642	AWI	Adjust REcoM model for simulating prognostic atmospheric CO2 concentrations, including fluxes from weathering, and volcanism.
WG2	WP2.1 M2	30.06.21	-642	AWI	Include iron sources from marine shelves, rivers, hydrothermal activity and sea ice in REcoM

Deadlines between 09/22 - 10/22

WP	WG	Due To	DAYS	Responsible	Task
CC	CC2 M11	30.10.22	-155	U Bonn	precipitation evolution in deglaciation simulation against pollen synthesis / macro fossils available
WG2	WP2.1 D3	30.09.22	-185	AWI, Marum	Perform transient simulations without interactive carbon cycle for abrupt climate changes during MIS3
WG2	WP2.2 D3	30.09.22	-185	UNI HH	Manuscript about the role of shelf weathering on land-ocean biogeochemical matter fluxes
WG2	WP2.3 D4	30.09.22	-185	MPI-C	Publication on isotope analyses submitted
WG2	WP2.3 M6	30.09.22	-185	MPI-C	Analyses of isotope and aerosol specific simulations, publication drafts
WG3	WP3.1 D5	30.09.22	-185	Marum	Revised temperature reconstructions based on planktonic foraminifera assemblages
WG3	WP3.1 M5	30.09.22	-185	Marum	Optimal calibration of planktonic foraminifera transfer function models
WG3	WP3.2 D3	30.09.22	-185	GFZ	Update of the PALIM data-base to integrate interpretations from proxy system models for key proxy records
WG3	WP3.2 D6	30.09.22	-185	MUN	Global ice sheet calibration of Termination II and I
WG3	WP3.2 M10	30.09.22	-185	MUN	Global ice sheet calibration for Termination II
WG1	WP1.2 M3	30.09.22	-185	AWI, Marum, MPI	Data from first asynchronosly coupled MIS3 simulations available to the PalMod community

Deadline 12/22

WG2	WP2.2 D1	30.12.22	-94	MPI	Manuscript on feedbacks between terrestrial biosphere and climate for the deglaciation, glacial inception, and MIS3
WG2	WP2.2 D2	30.12.22	-94	PIK	Transient simulation of the last glacial cycle with CLIMBER-X driven only by orbital forcing (jointly with WP1.X).
WG3	WP3.2 D4	30.12.22	-94	AWI	Proxy-Model-comparison of global palaeotemperatures reconstructed from oxygen isotopes in lake sediment cores
WG3	WP3.2 D5	30.12.22	-94	AWI	Pollen-based biome and climate reconstruction globally available for 130 – 0 ka
WG3	WP3.2 M4	30.12.22	-94	AWI	Synthesis of terrestrial palaeoclimate reconstructions by carbonate and silica oxygen isotopes, focusing on lake sediment cores with a regional focus on the Arctic
WG3	WP3.2 M7	30.12.22	-94	AWI	Drivers of vegetation dynamics investigated
WG3	WP3.3 D6	30.12.22	-94	AWI-P	Publication describing the results for MIS3 and the full glacial cycle
WG3	WP3.3 M5	30.12.22	-94	AWI	Global synthesis and comparison of the spectrum of water isotope variability for MIS3 and full glacial cycle finished
CC	CC2 D6	31.12.22	-93	HZG	Final PalMod phase II paleo-data metadata table
CC	CC2 D7	31.12.22	-93	HZG	Documentation of ensemble model-data comparison of deglacial simulation ensemble from PalMod phase II
CC	CC2 M7	31.12.22	-93	HZG	Standardization of paleo data finished (documentation contained in DMP)
CC	CC2 M8	31.12.22	-93	HZG	Publication of quality checked paleo data and enabling of version control workflow for future updates incl. persistent identifiers
CC	CC1 M8	31.12.22	-93	CAU	Parareal version with biogeochemistry coupled; Software, documentation of convergence and efficiency results
CC	CC1 M9	31.12.22	-93	CAU	Report of possible and promising extensions of parareal methods towards to additional model components and full ESM configurations
CC	CC2 D12	31.12.22	-93	UHD, Uni Bonn, HZG	Release of v1 of the toolbox and presentation of the results for all publicly released PalMod simulations on a dedicated website
CC	CC2 M9	31.12.22	-93	HZG	Application of ensemble tools to PalMod phase II simulations and PalMod phase II marine paleo data synthesis
WG2	WP2.1 D1	31.12.22	-93	AWI, CAU, MPI, Marum	Transient simulations without interactive carbon cycle for Termination I
CC	CC1 M6	31.12.22	-93	CAU	Asymptotic method realized and evaluated; Software, documentation of convergence and efficiency results
CC	CC1 M7	31.12.22	-93	CAU	Micro-macro parareal version running for ocean component, documentation of convergence and efficiency results
WG2	WP2.2 M4	31.12.22	-93	PIK	Spin-up and initialization procedures for permafrost and peat carbon pools and marine sediment state
WG2	WP2.3 M3	31.12.22	-93	MPI-M	Transient experiment glacial inception performed, publication draft
WG1	WP1.3 D1	31.12.22	-93	PIK	Providing early diagnostics in the ice sheet-climate system based on full glacial cycle CLIMBER-X simulations
WG2	WP2.2 M3	31.12.22	-93	PIK	Quantification of carbon cycle feedbacks operating through shelf processes during glacial inception and deglaciation with CLIMBER-X

Deadline 02/23 – 03/23

CC	CC2 D3	28.02.23	-34	DKRZ, HZG	Final release of DMP
CC	CC2 M2	28.02.23	-34	DKRZ	CMORization finished (documentation contained in DMP)
CC	CC2 M3	28.02.23	-34	DKRZ	Quality checks of model output and publication in ESGF and long-term archiving in WDCC incl. DataCite DOI assignment (documentation contained in DMP)
WG1	WP1.4 D2	28.02.23	-34	GFZ	Study on transient and local GIA response and impact on viscoelastic sea -level fingerprints
WG1	WP1.1 M2	31.03.23	-3	AWI, Marum, MPI	Analysis of control factors for the sequence of deglaciation key events
WG1	WP1.3 D2	30.03.23	-4	AWI, Marum, MPI	Accelerated ice sheet - solid earth - MIS 5.2climate simulations towards

If you meet a M or D, please let me know (kfieg@geomar.de), so I can remove it from the list!

Resources used at HLRE4/Levante in Q1 / 2023

DKRZ Project	[n*h] share for 2023	[n*h] accounted by 02.04.2023	[n*h] cut end of 03/23
0989 / WG1	790.025	200.504	60.639
1030 / WG2	259.000	67.294	27.886
1029 / WG3	81.000	20.250	1.145
0993 / CC	27.000	6.750	5.026
1192 / CC2-DM	8.300	2.075	1.631

Some subprojects have strong problems in getting along with the allocated /work space. This is due to the massive cuts of the WLA compared to the requested resources.
We therefore urge you to delete data from your /work that is not needed currently or to move it to the archive!

It is always possible to shift the resources on request between the projects. If necessary, please contact me, kfieg@geomar.de