



PALSEA2 2015 Workshop: Data-Model Integration and Comparison

22-24 July

Atmosphere and Ocean Research Institute

University of Tokyo, Japan

Organising committee: Glenn Milne, Ayako Abe-Ouchi,
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Sponsors:



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WEDNESDAY 22nd JULY

- 8:20 Registration (tea/coffee)
- 8:50 Welcome and introductory remarks
- 9:00 PALSEA/workshop aims and scope

Session 1: Pre Last Interglacial (LIG)

- 9:20 Alessio Rovere: Sea level and ice volumes during the Pliocene
- 9:45 Jaqueline Austermann: The impact of dynamic topography on Mid-Pliocene ice volume estimates (**invited**)
- 10:25 Ed Gasson: Miocene Antarctic ice sheet simulations using an asynchronously coupled RCM
- 10:50 Break**

Session 2: LIG

- 11:20 Andrea Dutton: Assessing the evidence for magnitude and timing of sub-orbital sea level oscillations during MIS 5e
- 11:45 Bette Otto-Bliesner: The Last Interglacial as a testbed for coupled climate-ice sheet model simulations of past ice sheet and sea level evolution (**invited**)
- 12:10 Kim Cohen: Last interglacial transgression rates and high stand duration in the near-field Eemian North Sea
- 12:35 Pepijn Bakker: Last interglacial equilibrium, transient and sensitivity experiments; going through the existing wealth of climate model output
- 13:00 Lunch**

Session 2: LIG (continued)

- 14:20 Ayako Abe-Ouchi: What makes the difference in the LIG ice sheet-climate models? Discussion on the LIG model intercomparison project (ISMIP-PMIP)
- 14:45 Emilie Capron: A new last interglacial temperature data synthesis as an improved benchmark for climate modeling
- 15:10 Karen Vyverberg: Evaluating the possibility of sub-orbital sea level oscillations using sedimentology, biotic assemblages and stratigraphy of Marine Isotope Stage 5e reefs
- 15:35 Heiko Goelzer: Impact of ice sheet melt water fluxes on the climate evolution at the onset of the Last Interglacial
- 16:00 Discussion
- 16:20 Break**

16:50 *Posters (Pre-LIG to LIG)*

Jo Brendryen: Nordic seas ocean-ice sheet interactions and global sea level between 50 and 150 ka

Miklos Kazmer: Rapid sea-level rise and fall at the end of the last interglacial – bioerosion evidence from Thailand

Stephen Obrochta: Climate variability and ice-sheet dynamics during the last three glaciations

Alessio Rovere: Last Interglacial sea level in the Mediterranean Sea: field data, tectonics and isostatic adjustment

Paolo Stocchi: Four recorded relative sea-level highstands before the mid-Pleistocene transition

Felicity Williams: Scenarios for variation of the MIS 6 Eurasian ice sheet

Masako Yamane: Exposure age and ice-sheet model constraints on Pliocene East Antarctic ice sheet dynamics

THURSDAY 23rd JULY

Session 3: Post-LIG and deglacial

9:00 Jeremy Fyke: Progress and challenges in coupling ice sheets into the Community Earth System Model (**invited**)

9:40 Steve George: Modelling northern hemisphere glacial inception and its relation to global sea-level change

10:05 Jorge Alvarez-Solas: Evaluating Greenland ice sheet model performance and paleo reconstructions over the last glacial cycle

10:30 Anders Carlson: Using cosmogenic nuclide inheritance to test ice-sheet model bed-thermal properties on Greenland

10:55 Break

11:25 Nicole Abdul: The Barbados sea level record

11:50 Jenny Stanford: A statistical re-assessment of multiple far-field deglacial sea-level records

12:15 Kelsey Sanborn: Coral reef response to abrupt sea-level rise in Hawaii: Implications for understanding global reef records and deglacial meltwater history

12:40 Discussion

13:00 Lunch

Session 4: Databases

14:20 Nicole Khan: Holocene relative sea-level changes from near-, intermediate- and far-field locations

14:45 Gaylen Sinclair: Using surface exposure ages to test deglacial ice sheet models: A Greenland test case

15:10 Database progress, issues and discussion

15:40 Break

16:10 Posters (post LIG to present and databases)

Amandine Auriac: Earth rheology in the Barents Sea inferred from glacial isostatic adjustment modelling and comparison to relative sea-level data

Natasha Barlow: Testing hypotheses of the last glacial maximum ice cap over South Georgia, sub-Antarctic, using glacio-isostatic adjustment modelling of raised marine features

Mike Bentley: A relative sea-level database for Antarctica

Alberic Botella: Interpreting Holocene sea-level reconstructions from the Tropical Pacific

Martin Brader: Postglacial relative sea-level change and the deglaciation of northwest Iceland

Okuku Ediang: Data management teleconnections of Arctic Oscillation, Southern Oscillation and ocean surges: An Overview in West Africa coastal areas

Fiona Hibbert: Fossil corals and speleothems as markers of past sea levels: Towards a consistent global repository

Takeshige Ishawa: Reappraisal of sea-level lowstand during the last glacial maximum observed in the Bonaparte Gulf, northwestern Australia

Volker Klemann: SLIVISU, update of the visual analytics software for inspection of SLI data and data-model inter-comparison

Benoit Lecavalier: Development towards a full Bayesian calibration of a 3D glacial systems model of the Antarctic ice sheet over the last glacial cycle

Takashi Obase: The responses of Antarctic ice shelves basal melting to climatic forcing under the LGM and a CO₂ doubling climate

Jun'ichi Okuno: The development of 3D ice sheet modelling (IcIES) including viscoelastic bedrock deformation: Implications for the relative sea-levels in Greenland

Fuyuki Saito: Development of numerical ice-sheet model (IceIES) and its application of Antarctic and Greenland ice sheets

Tim Shaw: Historical sea-level trends from the Croatian Coast of the Adriatic Sea

Tim Shaw: Investigating Late Holocene relative sea-level changes from Chesapeake Bay, U.S. Atlantic Coast

Kristian Vasskog: Constraining mid-Holocene eustatic rise by combining well-dated sea-level records from Scandinavia and global ice sheet modeling

Yurui Zhang: The effect of ice sheets on climate in the early Holocene

FRIDAY 24th JULY

Session 5: Holocene

9:00 Michiel Helsen: Reconstructing Holocene Greenland ice sheet history in an ice sheet - earth system model framework

9:25 Benoit Lecavalier: A high-Arctic Holocene climate record

9:50 Yusuke Yokoyama: Holocene Antarctic melting history and long term plate boundary tectonics inferred from sea level observation in southwestern Japan

10:15 Richard Jones: Holocene deglaciation of Antarctica: Steady or rapid?

10:40 Break

11:10 Andrea Hawkes: Relative sea-level changes in Florida during the last 8000 years

11:35 Ben Horton: Common Era sea level database

12:00 Bob Kopp: Sea-level variability over the Common Era

12:25 Matt Brain: Role of sediment compaction as a driver of relative sea-level change reconstructed from salt-marsh sediment

12:50 Lunch

14:10 Discussion and workshop wrap-up

15:00 Tour of AORI Laboratories

17:00 End of Workshop