Dr. Johannes Feldmann

Curriculum Vitae

Scientific career

Since 2016 **Postdoctoral researcher** in Ice Dynamics working group (lead Prof. Dr. Ricarda Winkelmann), Potsdam Institute for Climate Impact Research, Germany.

2013 – 2016 **Ph.D. (Dr. rer. nat.) in Climate Physics (summa cum laude)**, *Potsdam Institute for Climate Impact Research*, Germany and *University of Potsdam*, Germany.

Doctoral thesis on: *"Stability of the West Antarctic Ice Sheet: From the concept of similitude to dynamic modeling"*

Supervisor: Prof. Dr. Anders Levermann

06/2012 – 11/2012 **Visiting scientist**, *University of Alaska Fairbanks*, USA.

2006 – 2012 **Studies in Physics**, *University of Potsdam*, Germany.

Graduation in Physics (Diplom) "with distinction"

Diploma thesis on: *"Modeling of Pine Island and Thwaites Glaciers with PISM-PIK"*

Majors: Climate Physics, Computational Physics

Awards

Ph.D. scholarship awarded by Deutsche Bundesstiftung Umwelt (2013 – 2016)

✉ *johannes.feldmann@pik-potsdam.de*

Peer-reviewed publications

J. Feldmann and A. Levermann. *Timescales of outlet-glacier flow with negligible basal friction: theory, observations and modeling.* The Cryosphere 17 (2023), 327–348.

T. Schlemm, **J. Feldmann**, R. Winkelmann, and A. Levermann. *Stabilizing effect of mélange buttressing on the marine ice-cliff instability of the West Antarctic Ice Sheet.* The Cryosphere 16 (2022), 1979–1996.

J. Feldmann, R. Reese, R. Winkelmann, and A. Levermann. *Shear-margin melting causes stronger transient ice discharge than ice-stream melting in idealized simulations.* The Cryosphere 16 (2022), 1927-1940.

S. L. Cornford, H. Seroussi, X. S. Asay-Davis, G. H. Gudmundsson, R. Arthern, C. Borstad, J. Christmann, T. Dias dos Santos, **J. Feldmann**, D. Goldberg, M. J. Hoffman, A. Humbert, T. Kleiner, G. Leguy, W. H. Lipscomb, N. Merino, G. Durand, M. Morlighem, D. Pollard, M. Rückamp, C. R. Williams and H. Yu. *Results of the third Marine Ice Sheet Model Intercomparison Project (MISMIP+).* The Cryosphere 14 (2020), 2283-2301.

J. Feldmann and A. Levermann. *Stabilizing the West Antarctic Ice Sheet by surface mass deposition.* Science Advances 5 (2019)

A. Levermann and **J. Feldmann**. *Scaling of instability time-scales of Antarctic outlet glaciers based on one-dimensional similitude analysis.* The Cryosphere 13 (2019), 1621-1633.

J. Feldmann, R. Reese, R. Winkelmann and A. Levermann. *Snowfall versus sub-shelf melt: response of an idealized 3D ice-sheet-shelf system to mass redistribution.* The Cryosphere Discussions (2018).

J. Feldmann and A. Levermann. *From cyclic ice streaming to Heinrich-like events: the grow-and-surge instability in the Parallel Ice Sheet Model.* The Cryosphere 11 (2017), 1913-1932.

J. Feldmann and A. Levermann. *Similitude of ice dynamics against scaling of geometry and physical parameters.* The Cryosphere 10 (2016), 1753-1769.

✉ *johannes.feldmann@pik-potsdam.de*

M. Mengel, **J. Feldmann** and A. Levermann. *Linear sea-level response to abrupt ocean warming of major West Antarctic ice basin.* Nature Climate Change 6 (2016), 71-74.

J. Feldmann and A. Levermann. *Collapse of the West Antarctic Ice Sheet after local destabilization of the Amundsen Basin.* Proceedings of the National Academy of Sciences 112 (2015).

J. Feldmann and A. Levermann. *Interaction of marine ice-sheet instabilities in two drainage basins: simple scaling of geometry and transition time.* The Cryosphere 9 (2015), 631-645.

J. Feldmann, T. Albrecht, C. Khroulev, F. Pattyn and A. Levermann. *Resolution-dependent performance of grounding line motion in a shallow model compared to a full-Stokes model according to the MISMIP3d intercomparison.* Journal of Glaciology 60(220) (2014), 353-360.

✉ *johannes.feldmann@pik-potsdam.de*