

Publications: AGATHA M. DE BOER

Last update 20 August 2022

Peer-reviewed publications and monographs

42 in total, 13 as first author, 9 as PI/supervisor, 20 as collaborator.

*starred papers had a lead author in my group.

Google Citation Indices

h-index: 25

i10-index: 32

Total citations: 1870

42. Zhang, Z., Z. Zhang, Z. He, N. Tan, Z. Guo, J. Zhu, S. Steinig, Y. Donnadieu, J.-B. Ladant, W.-L. Chan, A. Abe-Ouchi, I. Niezgodzki, G. Knorr, D. Hutchinson, and **A. M. de Boer (2022)**, Impact of Mountains in Southern China on the Eocene Climates of East Asia. *Journal of Geographical Research-Atmospheres*, 127, e2022JD036510. <https://doi.org/10.1029/2022JD036510>
41. Niezgodzki, I, G. Knorr, M. Huber, G. Lohmann, D. J. Lunt, C. J. Poulsen, S. Steinig, J. Zhu, **A. M. de Boer**, W.-L. Chan, Y. Donnadieu, D. K. Hutchinson, J.-B. Ladant, and P. Morozova (2022), Simulation of Arctic sea ice within the DeepMIP Eocene ensemble: thresholds, seasonality and factors controlling sea ice development. *Global and Planetary Change*, 214, <https://doi.org/10.1016/j.gloplacha.2022.103848>.
40. **De Boer, A. M.**, D. K. Hutchinson, F. Roquet, L. C. Sime, N. J. Burls, C. Heuzé (2022), The impact of Southern Ocean topographic barriers on the ocean circulation and the overlying atmosphere. *Journal of Climate*, 35(18), 5805-5821. <https://doi.org/10.1175/JCLI-D-21-0896.1>
39. Williams, C. J. R., D. J. Lunt, U. Salzmann, T. Reichgelt, G. N. Inglis, D. R. Greenwood, W.-L. Chan, Y. Donnadieu, D. K. Hutchinson, **A. M. de Boer**, J.B. Ladant, P. A. Morozova, I. Niezgodzki, G. Knorr, S. Steinig, Z. Zhang, J. Zhu, M. Huber, B. L. Otto-Bliesner (2022), The African monsoon during the early Eocene from the DeepMIP simulations. *Paleoceanography and Paleoclimatology*, 37, e2022PA004419, <https://doi.org/10.1029/2022PA004419>.
38. Zhang, Y., **A. M. de Boer**, D. J. Lunt, D. K. Hutchinson, P. Ross, T. van de Flierdt, P. Sexton, H. K. Coxall, S. Steinig, J.-B. Ladant, J. Zhu, Y. Donnadieu, Z. Zhang, W.-L. Chan, A. Abe-Ouchi, I. Niezgodzki, G. Lohmann, G. Knorr, C. J. Poulsen, M. Huber (2022), Early Eocene ocean meridional overturning circulation: The roles of atmospheric forcing and strait geometry. *Paleoceanography and Paleoclimatology*, 37, e2021PA004329. <https://doi.org/10.1029/2021PA004329>
37. Burls, N. J., C.D. Bradshaw, **A.M. De Boer**, N. Herold, M. Huber, M. Pound, Y. Donnadieu, A. Farnsworth, A. Frigola, E. Gasson, A. S. von der Heydt, D. K. Hutchinson, G. Knorr, K. T. Lawrence, C. H. Lear, X. Li, G. Lohmann, D. J. Lunt, A. Marzocchi, M. Prange, C. A. Riihimaki, A.-C. Sarr, N. Siler, Z. Zhang (2021), Simulating Miocene warmth: Insights from an opportunistic multi-model ensemble (MioMIP1). *Paleoceanography and Paleoclimatology*, 36, e2020PA004054. <https://doi.org/10.1029/2020PA004054>
- *36. Bradshaw, C. D., P. M. Langebroek, C. H. Lear, D. J. Lunt, H. K. Coxall, S. M. Sosdian, **A. M. de Boer (2021)**, Hydrology couples middle Miocene Antarctic ice-free area and deep ocean temperatures, *Nature Geoscience*, <https://doi.org/10.1038/s41561-021-00745-w>.
35. Lunt, D. J., F. Bragg, W. -L. Chan, D. K. Hutchinson, J. -B. Ladant, P. Morozova, I. Niezgodzki, S. Steinig, Z. Zhang, J. Zhu, A. Abe-Ouchi, E. Anagnostou, **A. M. de Boer**, H. K. Coxall, Y. Donnadieu, G. Foster, G. N. Inglis, G. Knorr, P. M. Langebroek, C. H. Lear, G. Lohmann, C. J. Poulsen, P.

- Sepulchre, J. E. Tierney, P. J. Valdes, E. M. Volodin, T. Dunkley Jones, C. J. Hollis, M. Huber, M., and B. L. Otto-Bliesner (2021), DeepMIP: model intercomparison of early Eocene climatic optimum (EECO) large-scale climate features and comparison with proxy data, *Clim. Past*, 17, 203–227, <https://doi.org/10.5194/cp-17-203-2021>
- *34. Hutchinson, D. K., H. K. Coxall, D. J. Lunt, M. Steinthorsdottir, **A. M. de Boer**, M. Baatsen, A. von der Heydt, M. Huber, A. T. Kennedy-Asser, L. Kunzmann, J.-B. Ladant, C. H. Lear, K. Moraweck, P. N. Pearson, E. Piga, M. J. Pound, U. Salzmann, H. D. Scher, W. P. Sijp, K. K. Śliwińska, P. A. Wilson, and Z. Zhang (2021), The Eocene–Oligocene transition: a review of marine and terrestrial proxy data, models and model–data comparisons, *Climate of the Past*, 17, 269–315, <https://doi.org/10.5194/cp-17-269-2021>
33. Steinthorsdottir, M., H. K. Coxall, **A. M. de Boer**, M. Huber, N. Barbolini, C. D. Bradshaw, N. J. Burls, S. J. Feakins, E. Gasson, J. Henderiks, A. Holbourn, S. Kiel, M. J. Kohn, G. Knorr, W. M. Kürschner, C. H. Lear, D. Liebrand, D. J. Lunt, T. Mörs, P. N. Pearson, M. J. Pound, H. Stoll, C. A. E. Strömberg (2020), The Miocene: the Future of the Past, *Paleoceanography and Paleoclimatology*, 35, e2020PA004037. <https://doi.org/10.1029/2020PA004037>
32. Inglis, G. N., F. Bragg, N. J. Burls, M. J. Cramwinckel, D. Evans, G. L. Foster, M. Huber, D. J. Lunt, N. Siler, S. Steinig, J. E. Tierney, R. Wilkinson, E. Anagnostou, **A. M. De Boer**, T. Dunkley Jones, K. M. Edgar, C. J. Hollis, D. K. Hutchinson, R. D. Pancost (2020), Global mean surface temperature and climate sensitivity of the early Eocene Climatic Optimum (EECO), Paleocene–Eocene Thermal Maximum (PETM), and latest Paleocene, *Climate of the Past*, vol. 16, no. 5, p. 1953, DOI: 10.5194/cp-16-1953-2020.
- *31. Hutchinson, D. K., H. K. Coxall, Matthew O'Regan, J. Nilsson, and **A. M. De Boer** (2019), Arctic closure as a trigger for Atlantic overturning at the Eocene-Oligocene Transition, *Nature Communications*, 10, Article number: 3797, doi:10.1038/s41467-019-11828-z
30. **De Boer, A.M.**, E. Gavilan Pascual-Ahuir, D. P. Stevens, L. Chafik, D. K. Hutchinson, Q. Zhang, L. C. Sime, A. J. Willmott (2018), Interconnection between Interconnectivity between volume transports through Arctic straits, *J. of Geophysical Research – Oceans*, 123. <https://doi.org/10.1029/2018JC014320>
- *29. Hutchinson, D. K., **A. M. De Boer**, H. K. Coxall, R. Caballero, J. Nilsson, and M. Baatsen (2018), Climate sensitivity and meridional overturning circulation in the late Eocene using GFDL CM2.1, *Climate of the Past*, 14, 789-810, doi.org/10.5194/cp-14-789-2018
28. Ferreira, D., P. Cessi, H. K. Coxall, **A. M. De Boer**, H. A. Dijkstra, S. S. Drijfhout, T. Eldevik, N. Harnik, J. F. McManus, D. P. Marshall, J. Nilsson, F. Roquet, T. Schneider, R. C. Wills (2018), Atlantic-Pacific Asymmetry in Deep-Water Formation, *Annual Review of Earth and Planetary Sciences*, Vol. 46:327-352, doi.org/10.1146/annurev-earth-082517-010045
27. Coxall, H. K., C. E. Huck, M. Huber, C. H. Lear, A. Legarda-Lisarrí, M. O'regan, K. K. Sliwinska, T. Fliedert, **A. M. De Boer**, J. C. Zachos, J. Backman (2018), Export of nutrient rich Northern Component Water preceded early Oligocene Antarctic glaciation, *Nature Geoscience*, Vol 11, 190-196, doi:10.1038/s41561-018-0069-9.
26. Jakobsson, M., C. Pearce, T. M. Cronin, J. Backman, L. G. Anderson, N. Barrientos, G. Björk, H. Coxall, **A. M. De Boer**, L. A. Mayer, C. Mörth, J. Nilsson, J. E. Rattray, C. Stranne, I. Semiletov, and M. O'Regan (2017), Post-glacial flooding of the Bering Land Bridge dated to 11 cal ka BP based on new geophysical and sediment records, *Climate of the Past*, Vol 13, 991-1005, /doi.org/10.5194/cp-13-991-2017.

25. Sime, L. C., D. Hodgson, T. J. Bracegirdle, C. Allen, B. Perren, S. Roberts, and **A. M. De Boer (2016)**, Sea ice led to poleward-shifted winds at the Last Glacial Maximum: the influence of state dependency on CMIP5 and PMIP3 models, *Climate of the Past*, Vol 12, 2241-2253, doi:10.5194/cp-12-2241-2016.
- *24. Graham M. D., **A. M. De Boer**, E. van Sebille, K. E. Kohfeld, C. Schlosser (2015), Inferring source regions and supply mechanisms of iron in the Southern Ocean from satellite chlorophyll data, *Deep Sea Research I*, Vol 104, 9-25, doi:10.1016/j.dsr.2015.05.007.
- *23. Thomas, M. D., **A. M. De Boer**, H. L. Johnson, D. P. Stevens (2014), Spatial and temporal scales of Sverdrup Balance, *Journal of Physical Oceanography*, doi:10.1175/JPO-D-13-0192.1.
- 22. De Boer, A. M.** and A. McC. Hogg (2014), Control of the glacial carbon budget by topographically induced mixing, *Geophysical Research Letters*, Vol. 41, doi:10.1002/2014GL059963.
21. Steinhorsdottir, M., **A. M. de Boer**, K.I.C. Oliver, F. Muschitiello, M. Blaauw, P. J. Reimer, B. Wohlfarth (2014), Synchronous records of pCO₂ and Delta14C suggest rapid, ocean-derived pCO₂ fluctuations at the onset of Younger Dryas, *Quaternary Science Reviews*. 99, 84–96, doi: 10.1016/j.quascirev.2014.06.021.
20. Schuster, U., A. J. Watson, D. C. E. Bakker, **A. M. de Boer**, E. M. Jones, G. A. Lee, O. Legge, A. Louwse, J. Riley and S. Scally (2014), Measurements of total alkalinity and inorganic dissolved carbon in the Atlantic Ocean and adjacent Southern Ocean between 2008 and 2010, *Earth Syst. Sci. Data*, 6, 175–183, doi:10.5194/essd-6-175-2014.
- 19. De Boer, A. M.**, R. M. Graham, M. D. Thomas, K. E. Kohfeld (2013), The control of the Southern Hemisphere Westerlies on the position of the Subtropical Front, *J. of Geophysical Research – Oceans*, 118, 1–7, doi:10.1002/jgrc.20407.
- *18. Graham, R. M. and **A. M. De Boer (2013)**, The Dynamical Subtropical Front, *J. of Geophysical Research – Oceans*, 118, 1–10, doi:10.1002/jgrc.20408.
17. Kohfeld, K. E., R. M. Graham, **A. M. De Boer**, L. C. Sime, E. W. Wolff, C. Le Quere, and L. Bopp (2013), Southern Hemisphere Westerly Wind Changes during the Last Glacial Maximum: Paleo-data Synthesis, *Quaternary Science Reviews*. 68, 76–95, doi:10.1016/j.quascirev.2013.01.017.
16. Sime, L. C., K. E. Kohfeld, C. Le Quere, E. W. Wolff, **A. M. De Boer**, A. M., R. M. Graham, and L. Bopp (2013), Southern Hemisphere Westerly Wind Changes during the Last Glacial Maximum: Model-Data Comparison, *Quaternary Science Reviews*, 64, 104–120, doi:10.1016/j.quascirev.2012.12.008.
- 15. De Boer, A. M.**, A. B. Collier, and R. Caballero (2013), Processes driving thunderstorms over the Agulhas Current, *J. of Geophysical Research – Atmosphere*. doi:10.1002/jgrd.50238.
- *14. Graham, R. M., **A. M. De Boer**, K. J. Heywood, M. R. Chapman, and D. P. Stevens (2012), Southern Ocean fronts: Controlled by wind or topography?, *J. of Geophysical Research – Oceans* Vol. 117, C08018. doi: 10.1029/2012JC007887.
- *13. Thomas, M. D., **A. M. De Boer**, D. P. Stevens, and H. L. Johnson (2012), Upper Ocean Manifestations of a Reducing Meridional Overturning Circulation, *Geophysical Research Letters*, Vol. 39, L16609.
- 12. De Boer, A. M.**, A. J. Watson, N. R. Edwards, and K. I. C. Oliver (2010), A multi-variable box model approach to the soft tissue carbon pump, *Climates of the Past*, 6, 827–841, doi:10.5194/cp-6-827-2010.
- 11. De Boer, A. M.**, A. Gnanadesikan, N. R. Edwards, and A. J. Watson (2010), Meridional density gradients do not control the Atlantic overturning circulation., *J. Phys. Oceanography*, 40, 368–380, doi:10.1175/2009JPO4200.1

10. **De Boer, A. M.**, J. R. Toggweiler, and D. M. Sigman (2008), Atlantic dominance of the Meridional Overturning Circulation, *J. of Phys. Oceanography*, 38(2): 435.
9. Nof, D., S. van Gorder, and **A. M. De Boer** (2007), Does the Atlantic meridional overturning cell really have more than one stable steady state? *Deep-Sea Res. I*, 54 (11), 2005–2021.
8. **De Boer, A. M.**, D. M. Sigman, J. R. Toggweiler and J. L. Russell (2007), The effect of global ocean temperature change on deep ocean ventilation, *Paleoceanography*, 22, PA2210, doi:10.1029/2005PA001242.
7. Gnanadesikan, A., **A. M. De Boer**, and B. K. Mignone (2007), A simple theory of the pycnocline and overturning – revisited. In, *Ocean Circulation: Mechanisms and Impacts*, Geophysical Monograph Series 173, Washington, DC: American Geophysical Union, 19–32. doi:10.1029/173GM04
6. Sigman, D. M., **A. M. De Boer** and G. H. Haug (2007), An Antarctic overturning hypothesis for deglaciations. In, *Ocean Circulation: Mechanisms and Impacts*, Geophysical Monograph Series 173, Washington, DC: American Geophysical Union, 335–349. doi:10.1029/173GM21.
5. **De Boer, A. M.** and H. L. Johnson (2007), Inferring the zonal distribution of measured changes in the meridional overturning circulation, *Ocean Science*, 3, 55–57.
4. **De Boer, A. M.** and D. Nof (2005), The Island Wind-Buoyancy Connection, *Tellus*, 57A, Issue 5, 783–797.
3. **De Boer, A. M.** and D. Nof (2004), The Bering Strait 's Grip on the Northern Hemisphere Climate, *Deep-Sea Res.*, 51, 1347–1366.
2. **De Boer, A. M.** and D. Nof (2004), The exhaust valve of the North Atlantic, *Letter in J. Climate*, 17, 417–422.
1. Nof, D. and **A. M. De Boer** (2004), From the Southern Ocean to the North Atlantic in the Ekman layer? *Bull. Amer. Meteor. Soc.*, 85, 79–87.

Non-Peer Reviewed Publications

- De Boer, A. M.** (2010), Oceanography: Sea change, *Nature Geoscience*, 3(10): 668–669.