

List of publications

Refereed papers:

Döös, K., J. Kjellsson, J. Zika, F. Laliberté, L. Brodeau and A. Aldama Campino 2017: The Coupled Ocean-Atmosphere Hydrothermohaline Circulation. *Journal of Climate*, doi: <http://dx.doi.org/10.1175/JCLI-D-15-0759.1>

Döös, K., Jönsson, B, and J. Kjellsson, 2016: Evaluation of oceanic and atmospheric trajectory schemes in the TRACMASS trajectory model v6.0. *Geoscientific Model Development Discussions*. DOI: [10.5194/gmd-2016-201](https://doi.org/10.5194/gmd-2016-201)

Laliberté, F., J. Zika, L. Mudryk, P. Kushner, J. Kjellsson, J. and K. Döös, 2015: Constrained work output of the moist atmospheric heat engine in a warming climate. *Science*, Vol. 347 no. 6221 pp. 540-543, DOI: [10.1126/science.1257103](https://doi.org/10.1126/science.1257103)

Thompson, B., J. Nycander, J. Nilsson, M. Jakobsson, and K. Döös, 2014: Estimating ventilation time scales using overturning stream functions, *Ocean Dynamics*, 64:797-807 DOI [10.1007/s10236-014-0726-5](https://doi.org/10.1007/s10236-014-0726-5)

Ballarotta, M, S. Falahat, L. Brodeau, and K. Döös, 2014: On the glacial and inter-glacial thermohaline circulation and the associated transports of heat and freshwater, *Ocean Science*, 10, 907-921, doi:[10.5194/os-10-907-2014](https://doi.org/10.5194/os-10-907-2014)

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Soomere, T., K. Döös, A. Lehmann, M. Meier, J. Murawski, K. Myrberg, E. Stanev, 2014: The Potential of Current- and Wind-driven Transport for Environmental Management of the Baltic Sea. *Ambio*. doi: [10.1007/s13280-013-0480-9](https://doi.org/10.1007/s13280-013-0480-9)

Ballarotta, M, L. Brodeau, J.Brandefelt, P. Lundberg and K. Döös, 2013: Last Glacial Maximum world ocean simulations at eddy-permitting and coarse resolutions: do eddies contribute to a better consistency between models and palaeoproxies? *Clim. Past*, 9, 2669-2686, doi:[10.5194/cp-9-2669-2013](https://doi.org/10.5194/cp-9-2669-2013).

Nilsson, J.A.U., K. Döös, P. Ruti, V. Artale, A. Coward, L. Brodeau, 2013: Observed and modeled global-ocean turbulence regimes as deduced from surface trajectory data. *J. Phys. Oceanogr.* doi: [10.1175/JPO-D-12-0193.1](https://doi.org/10.1175/JPO-D-12-0193.1)

Ballarotta, M, K. Döös, P. Lundberg, L. Brodeau and J.Brandefelt, 2013: A Last Glacial Maximum World-Ocean simulation at eddy-permitting resolution - Part 2: Confronting the paleo-proxy data. doi:[10.5194/cpd-9-329-2013](https://doi.org/10.5194/cpd-9-329-2013).

Corell H., K. Döös, 2013: Difference in Particle Transport between Two Coastal Areas in the Baltic Sea Investigated with High-Resolution Trajectory Modeling. *Ambio*. DOI [10.1007/s13280-013-0397-3](https://doi.org/10.1007/s13280-013-0397-3)

Ballarotta, M, L. Brodeau, J.Brandefelt, P. Lundberg and K. Döös, 2013: A Last Glacial Maximum world-ocean simulation at eddy-permitting resolution - Part 1: Experimental design and basic evaluation. *Climate of the Past discussions*. doi:[10.5194/cpd-9-297-2013](https://doi.org/10.5194/cpd-9-297-2013).

Ballarotta, M., S. Drijfhout, T. Kuhlbrodt and K. Döös, 2013: The residual circulation of the Southern Ocean: Which spatio-temporal scales are needed?, *Ocean Modelling*, Volume 64, April 2013, Pages 46-55, <http://dx.doi.org/10.1016/j.ocemod.2013.01.005>.

Corell H., P.O. Moksnes, A. Engqvist, K. Döös, P. R. Jonsson, 2012: Depth distribution of larvae critically affects their dispersal and the efficiency of marine protected areas, *Marine Ecology Progress Series*, doi: [10.3354/meps09963](https://doi.org/10.3354/meps09963).

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Review articles and book chapters

Kjellsson, J., K. Döös, T. Soomere, 2013: Preventive Methods for Coastal Pollution: towards the Use of Ocean Dynamics for Pollution Control. Book Chapter 8: Evaluation and Tuning of Model Trajectories and Spreading Rates in the Baltic Sea using Surface-drifter Observations. Springer International Publishing. DOI: 10.1007/978-3-319-00440-2_8

Döös, K., J. Kjellsson, B. Jönsson, 2013: Preventive Methods for Coastal Pollution: towards the Use of Ocean Dynamics for Pollution Control. Book Chapter 7: TRACMASS - A Lagrangian Trajectory Model. Springer International Publishing. DOI: 10.1007/978-3-319-00440-2_7

Döös K., A. Engqvist, 2008: Book review of "Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics for Marine Geophysical Researches". *Mar Geophys. Res.* DOI 10.1007/s11001-008-9048-7.

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Webb, D., Thompson, S. and Döös, K. Heat transport in FRAM, In: Pollard, R. and Smythe-Wright, D. eds. *Understanding Ocean Circulation: UK WOCE, The First Six Years*, Swindon, NERC, 1996, p.22.

Döös K., 1989: Etude numérique de la variabilité saisonnière de 1982 à 1984 dans l'océan Atlantique tropical. Thèse de doctorat de l'Université Paris VI.

Compendia:

Döös K., 2013: Numerical methods in Meteorology and Oceanography. MISU. pp 145.

Open-access computer programs:

The Lagrangian trajectory code TRACMASS: <http://tracmass.org/>

The Barotropic ocean circulation model BAROCEAN: <http://doos.misu.su.se/code/barocean.zip>