

List of publications

Refereed papers:

Wen, Q., J. Yao, K. Döös, and H. Yang, 2018: Decoding Hosing and Heating Effects on Global Temperature and Meridional Circulations in a Warming Climate. *J. Climate*, 0, <https://doi.org/10.1175/JCLI-D-18-0297.1>

Hordoir, R., Axell, L., Höglund, A., Dieterich, C., Fransner, F., Gröger, M., Liu, Y., Pemberton, P., Schimanke, S., Andersson, H., Ljungemyr, P., Nygren, P., Falahat, S., Nord, A., Jönsson, A., Lake, I., Döös, K., Hieronymus, M., Dietze, H., Löptien, U., Kuznetsov, I., Westerlund, A., Tuomi, L., and Haapala, J.: Nemo-Nordic 1.0: A NEMO based ocean model for Baltic and North Seas, research and operational applications. *Geoscientific Model Development Discussions*, <https://www.geoscientific-model-dev-discuss.net/gmd-2018-2/>

van Sebille E., ..., K. Döös, ..., 2018: Lagrangian ocean analysis: Fundamentals and practices. *Ocean Modelling*, <https://doi.org/10.1016/j.ocemod.2017.11.008>

Berglund S., K. Döös, J. Nycander, 2017: Lagrangian tracing of the Water-mass transformations in the Atlantic Ocean. *Tellus*, doi:10.1080/16000870.2017.1306311

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Kjellsson, J., K. Döös, F. Laliberté and J. Zika, 2014: The Atmospheric General Circulation in Thermodynamical Coordinates. *J. Atmos. Sciences*, DOI: 10.1175/JAS-D-13-0173.1

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

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.

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Jönsson B, K. Döös , P. Lundberg , K. Myrberg, 2011: A Lagrangian-trajectory study of a gradually mixed estuary. *Continental Shelf Research* 31 (2011) 1811-1817, doi:10.1016/j.csr.2011.07.007

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Engqvist A., K. Döös and O. Andrejev, 2006: Modeling Water Exchange and Contaminant Transport through a Baltic Coastal Region. *Ambio* Vol. 35, No. 8.

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Speich S., B. Blanke, P. de Vries, K. Döös, S. Drijfhout, A. Ganachaud and R. Marsh 2002: Tasman leakage: a new route in the global ocean conveyor belt. *Geophysical Res. Letters*, VOL. 29, NO. 10.

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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

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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.

Book:

Döös K., 2018: Basic Numerical Methods in Meteorology and Oceanography. Stockholm University Press. pp 186.

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>