

Publications

Diploma Thesis

Meier, H.E.M., 1989: Nonlineare, plane plasma waves in Pulsar magnetospheres – an approach to take radiation reaction into account (in German). Diploma thesis, University of Kiel, 125 pp.

Ph.D. Thesis

Meier, H.E.M., 1996: A regional model of the western Baltic Sea with open boundary conditions and data assimilation (in German). PhD thesis, University of Kiel, in: Ber. Inst. f. Meereskunde No.284, D-24105 Kiel, Germany, 117 pp.

Articles in international scientific journals with referee practice

Summary: More than 123 peer-reviewed, accepted manuscripts (assessed on 2021-12-16; Web of Science: 118 published articles, 5104 times cited, h-index 37; Scholar Google: 8304 times cited, h-index 47; 2 articles highlighted by Nature Climate Change), 2 Eos articles, 25 scientific reports, 9 book chapters, 91 other scientific publications (newsletter articles, conference proceedings, editorials, etc.)

1. Haapala, J., **H.E.M. Meier**, and J. Rinne, 2001: Numerical investigations of future ice conditions in the Baltic Sea. *Ambio*, 30, 237-244.
2. **Meier, H.E.M.**, 2001: On the parameterization of mixing in three-dimensional Baltic Sea models. *J. Geophys. Res.*, 106, 30,997 - 31,016.
3. Döscher, R., U. Willén, C. Jones, A. Rutgersson, **H.E.M. Meier**, U. Hansson, and L.P. Graham, 2002: The development of the regional coupled ocean-atmosphere model RCAO. *Boreal Env. Res.*, 7, 183-192.
4. **Meier, H.E.M.**, 2002: Regional ocean climate simulations with a 3D ice-ocean model for the Baltic Sea. Part 1: Model experiments and results for temperature and salinity. *Clim. Dyn.*, 19, 237-253.
5. **Meier, H.E.M.**, 2002: Regional ocean climate simulations with a 3D ice-ocean model for the Baltic Sea. Part 2: Results for sea ice. *Clim. Dyn.*, 19, 255-266.
6. **Meier, H.E.M.**, and R. Döscher, 2002: Simulated water and heat cycles of the Baltic Sea using a 3D coupled atmosphere-ice-ocean model. *Boreal Env. Res.*, 7, 327-334
7. **Meier, H.E.M.**, and T. Faxén, 2002: Performance analysis of a multiprocessor coupled ice-ocean model for the Baltic Sea. *J. Atmos. Oceanic Technol.*, 19, 114-124.
8. Kauker, F., and **H.E.M. Meier**, 2003: Modeling decadal variability of the Baltic Sea: 1. Reconstructing atmospheric surface data for the period 1902-1998. *J. Geophys. Res.*, 108(C8), 3267, doi:10.1029/2003JC001797.
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11. **Meier, H.E.M.**, R. Döscher, and T. Faxén, 2003: A multiprocessor coupled ice-ocean model for the Baltic Sea: Application to salt inflow. *J. Geophys. Res.*, 108(C8), 3273, doi:10.1029/2000JC000521.

12. Wang, J., R. Kwok, F.J. Saucier, J. Hutchings, M. Ikeda, W. Hibler III, J. Haapala, M.D. Coon, **H.E.M. Meier**, H. Eicken, N. Tanaka, D. Prentki, and W. Johnson, 2003: Working towards improved small-scale sea ice-ocean modeling in the Arctic seas. *EOS, Trans. AGU*, 84(34), 325, 329-330.
13. Räisänen, J., U. Hansson, A. Ullerstig, R. Döscher, L.P. Graham, C. Jones, **H.E.M. Meier**, P. Samuelsson, and U. Willén, 2004: European climate in the late twenty-first century: regional simulations with two driving global models and two forcing scenarios. *Clim. Dyn.*, 22, 13-31.
14. Döös, K., **H.E.M. Meier**, and R. Döscher, 2004: The Baltic haline conveyor belt or the overturning circulation and mixing in the Baltic. *Ambio*, 33, 261-266.
15. Döscher, R., and **H.E.M. Meier**, 2004: Simulated sea surface temperature and heat fluxes in different climates of the Baltic Sea. *Ambio*, 33, 242-248.
16. **Meier, H.E.M.**, R. Döscher, and A. Halkka, 2004: Simulated distributions of Baltic sea ice in warming climate and consequences for the winter habitat of the Baltic ringed seal. *Ambio*, 33, 249-256.
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22. **Meier, H.E.M.**, 2006: Baltic Sea climate in the late twenty-first century: a dynamical downscaling approach using two global models and two emission scenarios. *Clim. Dyn.*, 27(1), 39-68, doi: 10.1007 / s00382-006-0124-x.
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27. Eilola, K., **H.E.M. Meier**, and E. Almroth, 2009: On the dynamics of oxygen, phosphorus and cyanobacteria in the Baltic Sea; a model study. *J. Marine Systems*, 75, 163-184.
28. Conley, D. J., S. Björk, E. Bonsdorff, J. Carstensen, G. Destouni, B. G. Gustafsson, S.Hietanen, M. Kortekaas, H. Kuosa, **H. E. M. Meier**, B. Müller-Karulis, K. Nordberg, G. Nürnberg, A. Norkko, H. Pitkänen, N. Rabalais, R. Rosenberg, O. Savchuk, C. P. Slomp, M. Voss, F. Wulff, and L. Zillén, 2009: Hypoxia-Related Processes in the Baltic Sea. *Environmental Science and Technology*, 43(10), 3412-3420.
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