

## AOMIP : Publications

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### 2011

- Aksenov, Yevgeny et al., (2011): Arctic pathways of Pacific water: AOMIP model experiments, *JGR*, submitted
- Dupont, Frederic, (2011): Effect of sea-ice biology in a biophysical model of the Pan-Arctic Ocean and response to Arctic warming, *JGR* accepted
- Gao, Guoping et al., (2011): An Unstructured-Grid, Finite-Volume Sea Ice Model(UG-CICE): Development, Validation and Application , *JGR*, accepted
- Holloway, Greg, (2011): Oceans and ocean models as seen by current meters, *JGR*, under revision
- Houssais, M.-N., and C. Herbaut (2011), Atmospheric forcing on the Canadian Arctic Archipelago freshwater outflow and implications for the Labrador Sea variability, *J. Geophys. Res.*, 116, C00D02, doi:10.1029/2010JC006323.
- Johnson, Mark A. et al., (2011): Evaluation of Arctic sea ice thickness simulated by AOMIP models, *JGR*, submitted
- Michael Karcher, John N. Smith, Frank Kauker, Rüdiger Gerdes and Bill Smethie (2011): Arctic Ocean circulation variability and the dispersion of <sup>129</sup> Iodine, *JGR*, submitted
- Kuzmina, Natalia (2011): On the structure and dynamical features of intrusive layering in the Eurasian Basin in the Arctic Ocean, *JGR*, under revision
- Kwok, Ron (2011): Observational assessment of Arctic Ocean sea ice motion, export, and thickness in CMIP3 climate simulations, *JGR*, under revision
- Moshonkin S.N., G.V. Alekseev, A.V. Gusev, N.A. Diansky, V.B. Zalesny, A.V. Pnyushkov.  
Modeling of climate processes in the Arctic Ocean. "Meteorological and geophysical researches". "Contribution of Russia to IPY 2007/08 ". Paulsen Editions. Moscow – Saint-Petersburg 2011. PP. 130-149.
- Moshonkin S.N., G.V. Alekseev, A.V. Bagno, A.V. Gusev, N.A. Diansky, V.B. Zalesny (2011): Numerical simulation of the North Atlantic-Arctic Ocean-Bering Sea circulation in the 20th century. *Russian Journal of Numerical Analysis and Mathematical Modeling*. Netherland. 2011. Vol.26, No.2, pp. 161-178.
- Moshonkin S.N. , G.V. Alekseev, N.A. Diansky, A.V. Gusev, V.B. Zalesny. Numerical modeling of the Atlantic Water inflow in Arctic Ocean and Beaufort Gyre fresh water content climatic variability. *Izvestiya Atmospheric and Oceanic Physics*, 2011, Vol. 47, pp. 1–20. Submitted.
- Martensson, Sebastian, Simulated long-term variability of ridged sea-ice in the Arctic Ocean using a coupled multi-category sea-ice ocean model, *JGR*, under revision
- Maslowski, Wieslaw, Volume and Freshwater Export Through the Canadian Arctic Archipelago - Part I: Evaluation of Seasonal and Interannual Results from a High-Resolution Model, *JGR*, submitted
- Maslowski, Wieslaw, Volume and Freshwater Export Through the Canadian Arctic Archipelago - Part II: Control Mechanisms, *JGR* , submitted
- Nguyen, A. T., D. Menemenlis, and R. Kwok ( 2011 ), Arctic ice?ocean simulation with optimized model parameters: Approach and assessment , *J. Geophys. Res.* , 116 , C04025, doi:10.1029/2010JC006573
- Platov G. A. (2011). Numerical Modeling of Deepwater Generation in the Arctic Ocean: Part I. Idealized Tests, *Izvestiya, Atmospheric and Oceanic Physics*, 2011, Vol. 47, No. 3, pp. 362–376. © Pleiades Publishing, Ltd., 2011. Original Russian Text © G.A. Platov, 2011, published in *Izvestiya AN.Fizika Atmosfery i Okeana*, 2011, Vol. 47, No. 3, pp. 393–408.
- Platov G. A., 2011. Numerical Modeling of Deepwater Generation in the Arctic Ocean: Part II. Results of Regional and Global Calculations, ISSN 0001 4338, *Izvestiya, Atmospheric and Oceanic Physics*, 2011, Vol.47, No. 3, pp. 377–392. © Pleiades Publishing, Ltd., 2011. Original Russian Text © G.A. Platov, 2011, published in *Izvestiya AN. Fizika Atmosfery i Okeana*, 2011, Vol. 47, No. 3, pp. 409–425.
- Popova, Ekaterina, What controls primary production in the Arctic Ocean? Results from an ecosystem model intercomparison, *JGR*, submitted
- Proshutinsky et al., Origin of the Arctic Ocean hydrography structure and circulation variability, in preparation
- Proshutinsky, A., Y. Aksenov, J. Clement Kinney, R. Gerdes, E. Golubeva, D. Holland, G. Holloway, A. Jahn, M. Johnson, E. Popova, M. Steele, and E. Watanabe. 2011. Recent advances in Arctic ocean studies employing models from the Arctic Ocean Model Intercomparison Project. *Oceanography* 24(3):102–113, <http://dx.doi.org/10.5670/oceanog.2011.61>.
- Rampal, Pierre, IPCC climate models do not capture Arctic sea ice drift acceleration: Consequences in terms of projected sea ice thinning and decline, *JGR*, under revision

### Related Files

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Golubeva E.N. and G. A. Platov, (2009): Numerical Modeling of the Arctic Ocean Ice System Response to Variations in the Atmospheric Circulation from 1948 to 2007
- » [PDF](#)  
Yakovlev N. G., (2009): Reproduction of the Large-Scale State of Water and Sea Ice in the Arctic Ocean in 1948–2002: Part I. Numerical Model
- » [PDF](#)  
Yakovlev N. G., (2009): Reproduction of the Large-Scale State of Water and Sea Ice in the Arctic Ocean in 1948–2002: Part 2. State of sea ice and snow cover
- » [PDF](#)  
Aksenov, Yevgeny, Bacon, Sheldon, Coward, Andrew C., Nurser, A.J. George, The North Atlantic inflow to the Arctic Ocean: High-resolution model study
- » [PDF](#)  
Proshutinsky, A., et al. (2011): Recent advances in Arctic ocean studies employing models from the Arctic Ocean Model Intercomparison Project.

- Rudels, Bert, Volume and freshwater transports through the Canadian Arctic Archipelago - Baffin Bay system, *JGR*, under revision
- Sakov, Pavel, TOPAZ4: an ocean-sea ice data assimilation system for the North Atlantic and Arctic, *JGR*, submitted
- Schweiger, Axel J, Uncertainty in Modeled Arctic Sea Ice Volume, *JGR*, under revision
- Timmermans, M.-L., A. Proshutinsky, R. Krishfield, D. Perovich, J. Richter-Menge, T. Stanton, and J. Toole (2011), Surface freshening in the Arctic Ocean's Eurasian Basin: an apparent consequence of recent change in the wind-driven circulation, *J. Geophys. Res.*, doi:10.1029/2011JC006975, in press.
- Wang, Zeliang, Effects of parameterized eddy stress on heat and freshwater transports through Fram Strait, *JGR*, resubmitted after revision
- Zhang, Xiangdong, Modeling Investigation on Regional Displacement of Arctic Ocean Freshwater Storage, *JGR*, submitted

## 2010

- Aksenov, Y., Bacon, S., Coward, A., and Nurser, A. J. G., The North Atlantic Inflow to the Arctic Ocean: high-resolution model study, *Journal of Marine Systems* 79 (1-2), 1-22 (2010)
- Aksenov, Y., Bacon, S., Coward, A., and Holliday, N. P., Polar Outflow from the Arctic Ocean: A high resolution model study, *Journal of Marine Systems* 83 (1-2), 14-37 (2010).
- Döscher, R., K. Wyser, H. E. M. Meier, M. Qian, and R. Redler, 2010: Quantifying Arctic contributions to climate predictability in a regional coupled ocean-ice-atmosphere model. *Clim. Dyn.*, 34, 1157-1176, doi: 10.1007/s00382-009-0567-y
- Calder, J. , Proshutinsky & Co-Authors (2010). "An Integrated International Approach to Arctic Ocean Observations for Society (A Legacy of the International Polar Year)" in *Proceedings of OceanObs'09: Sustained Ocean Observations and Information for Society (Vol. 2)*, Venice, Italy, 21-25 September 2009, Hall, J., Harrison D.E. & Stammer, D., Eds., ESA Publication WPP-306.
- Fenty, I. G., 2010: State Estimation of the Labrador Sea with a Coupled Sea Ice-Ocean Adjoint Model. Ph.D. thesis, MIT Program in Atmospheres, Oceans, and Climate (PAOC), June 2010, Cambridge, MA, USA.
- Golubeva, E. N., 2010: Studying the role of temperature and salinity anomalies in the formation of world ocean meridional circulation modes// Numerical Analysis and Applications Volume 3, Number 3, 208-217, DOI: 10.1134/S199542391003002X
- Heimbach, P., D. Menemenlis, M. Losch, J.M. Campin, and C. Hill, 2010: On the formulation of sea-ice models. Part 2: Lessons from multi-year adjoint sea ice export sensitivities through the Canadian Arctic Archipelago. *Ocean Modelling*, 33(1-2), 145-158, doi:10.1016/j.ocemod.2010.02.002
- Heimbach, P., C. Wunsch, R.M. Ponte, G. Forget, C. Hill, and J. Utke, 2010: Timescales and Regions of the Sensitivity of Atlantic Meridional Volume and Heat Transport Magnitudes: Toward Observing System Design. *Deep Sea Res.* (special issue on the AMOC) accepted.
- Karcher, M., Beszczynska-Möller, A., Kauker, F., Gerdes, R., Heyen, S., Rudels, B., Schauer, U. (2010). Weakening of Denmark Strait Overflow as a Consequence of Arctic Ocean Warming, *JGR-Oceans*, in revision.
- Karcher, M., Harms, I., Strandring, W., Dowdall, M., Strand, P. (2010). On the Potential for Climate Change Impacts on Marine Radioactivity in the Arctic Regions, *Marine Pollution Bulletin*, Volume 60, Issue 8, August 2010, Pages 1151 - 1159, doi: 10.1016/j.marpolbul.2010.05.003.
- Kuzin, V. I., G. A. Platov, E. N. Golubeva, Influence of interannual variability of Siberian River Discharge on fresh water transport distribution in the Arctic and North Atlantic, [Izvestiya Atmospheric and Oceanic Physics](#), in press)
- Kuzin V. I., G. A. Platov and E. N. Golubeva (2010). Influence that interannual variations in Siberian river discharge have on redistribution of freshwater fluxes in Arctic Ocean and North Atlantic, *Izvestiya Atmospheric and Oceanic Physics*, Volume 46, Number 6, 770-783, DOI: 10.1134/S0001433810060083 Original Russian Text © V.I. Kuzin, G.A. Platov, E.N. Golubeva, 2010, published in *Izvestiya AN. Fizika Atmosfery i Okeana*, 2010, Vol. 46, No. 6, pp. 831–845.
- Lemieux, J.-F., B. Tremblay, J. Sedlacek, P. Tupper, S. Thomas, D. Huard and J.-P. Auclair (2010), Improving the numerical convergence of viscous-plastic sea ice models with the Jacobian-free Newton-Krylov method, *J. Comp. Phys.*, 229, 2840-2852, doi:10.1016/j.jcp.2009.12.011.
- Losch, M., D. Menemenlis, J.M. Campin, P. Heimbach, and C. Hill, 2010: On the formulation of sea-ice models. Part 1: Effects of different solver implementations and parameterizations. *Ocean Modelling*, 33(1-2), 129-144, doi:10.1016/j.ocemod.2009.12.008
- Lu Y., S. Nudds, F. Dupont, M. Dunphy, C. Hannah, S. Prinsenber. 2010. High-resolution Modelling of Ocean and Sea-ice Conditions in the Canadian Arctic Coastal Waters. Proceedings of the 20th International Offshore and Polar Engineering Conference. Beijing, China. 20-26 June 2010.
- Panteleev, G., D. A. Nechaev, A. Proshutinsky, R. Woodgate, and J. Zhang (2010), Reconstruction and analysis of the Chukchi Sea circulation in 1990–1991, *J. Geophys. Res.*, 115, C08023, doi:10.1029/2009JC005453.
- Popova, E. E., Yool, A., Coward, A. C., Aksenov, Y. K., Alderson, S. G., de Cuevas, B. A., and Anderson, T. R.: Control of primary production in the Arctic by nutrients and light: insights from a high resolution ocean general circulation model, *Biogeosciences Discuss.*, 7, 5557-5620, doi:10.5194/bgd-7-5557-2010, 2010.
- Proshutinsky A., R. Krishfield, M. Steele, I. Polyakov, I. Ashik, M. McPhee, J. Morison, M.-L. Timmermans, J. Toole, V. Sokolov, I. Frolov, E. Carmack, F. McLaughlin, K. Shimada, R. Woodgate, and T. Weingartner, 2010: Ocean [in "State of the Climate in 2009"]. *Bull. Amer. Meteor. Soc.*, 2010.

- Rabe, B., Karcher, M., Schauer, U., Toole, J. M., Krischfield, R. A., Pisarev, P., Kauker, F., Gerdes, R., Kikuchi, T. (2010). An assessment of pan-Arctic Ocean freshwater content changes from the 1990s to the IPY period, *Deep Sea Research Part I*, in revision

## 2009

- Aksenov, Yevgeny, Bacon, Sheldon, Coward, Andrew C., Nurser, A.J. George, The North Atlantic inflow to the Arctic Ocean: High-resolution model study, *Journal of Marine Systems* (2009), doi: 10.1016/j.jmarsys.2009.05.003 (in press). [[download PDF on right sidebar](#)]
- Chen, C., G. Gao, J. Qi, A. Proshutinsky, R. C. Beardsley, Z. Kowalik, H. Lin, and G. Cowles (2009), A New High-Resolution Unstructured-Grid Finite-Volume Arctic Ocean Model (AO-FVCOM): An Application for Tidal Studies, *J. Geophys. Res.*, doi:10.1029/2008JC004941, in press.
- de Steur, L., Hansen, E., Gerdes, R., Karcher, M., Fahrbach, E., Holfort, J., 2009: Freshwater Fluxes in the East Greenland Current: A decade of observations, *Geophysical Research Letters*, 36, L23611., doi:10.1029/2009GL041278.
- Fieg, K., R.Gerdes, E.Fahrbach, Simulation of oceanic volume transports through Fram Strait 1995-2004, 2009: *Ocean Dynamics*, 12., doi:10.1007/s10236-010-0263-9.
- Golubeva E.N. and G. A. Platov, (2009): Numerical Modeling of the Arctic Ocean Ice System Response to Variations in the Atmospheric Circulation from 1948 to 2007, *ISSN 0001-4338, Izvestiya, Atmospheric and Oceanic Physics, 2009, Vol. 45, No. 1, pp. 137–151.* © Pleiades Publishing, Ltd., 2009. Original Russian Text © E.N. Golubeva, G.A. Platov, 2009, published in *Izvestiya AN. Fizika Atmosfery i Okeana, 2009, Vol. 45, No. 1, pp. 145–160.* [[download PDF on right sidebar](#)]
- Golubeva E. N. and G. A. Platov, 2009: Numerical modeling of the Arctic Ocean ice system response to variations in the atmospheric circulation from 1948 to 2007// *Izvestiya Atmospheric and Oceanic Physics*, Volume 45, Number 1, 137-151, DOI: 10.1134/S0001433809010095
- Holloway, G., and Z. Wang (2009), Representing eddy stress in an Arctic Ocean model, *J. Geophys. Res.*, 114, C06020, doi: 10.1029/2008JC005169.
- Heimbach (lead author) et al., 2009: Observational Requirements for global-scale ocean climate analysis: Lessons from ocean state estimation. Community White Paper. In: Hall, J., D.E. Harrison, and D. Stammer (Eds.), 2010: Proceedings of OceanObs'09: Sustained Ocean Observations and Information for Society, Venice, Italy, 21-25 September 2009, ESA Publication WPP-306.
- Kauker, F., T. Kaminski, M. Karcher, R. Giering, R. Gerdes, and M. Voßbeck, 2009: Adjoint analysis of the 2007 all time Arctic sea-ice minimum, *Geophys. Res. Lett.*, 36, L03707, doi:10.1029/2008GL036323.
- Lemieux, J.-F., and B. Tremblay (2009), Numerical convergence of viscous-plastic sea ice models, *J. Geophys. Res.*, 114, C05009, doi:10.1029/2008JC005017.
- Krupchatnikov, V N. , Kuzin, V I. ,Golubeva, E N. , Martynova, Yu V. , Platov, G A. , Krylova, A I., 2009: Hydrology and vegetation dynamics of the climate system of northern Eurasia and the Arctic basin, *Izvestiya Atmospheric and Oceanic Physics* Volume 45, Number 1, 116-136, DOI: 10.1134/S0001433809010083
- Nguyen A., D. Menemenlis, and R. Kwok, 2009: Improved modeling of the Arctic halocline with a sub-grid-scale brine rejection parameterization. *J. Geophys. Res.*, 114, C11014, doi:10.1029/2008JC005121, 2009
- Rabe, B., Schauer, U., Mackensen, A., Karcher, M., Hansen, E., Beszczynska-Möller, A. (2009). Freshwater components and transports in the Fram Strait: - recent observations and changes since the late 1990s, *Ocean Sci.*, 5, 219-233.
- Yakovlev N. G., (2009): Reproduction of the Large-Scale State of Water and Sea Ice in the Arctic Ocean in 1948–2002: Part I. Numerical Model, *ISSN 0001-4338, Izvestiya, Atmospheric and Oceanic Physics, 2009, Vol. 45, No. 3, pp. 357–371.* © Pleiades Publishing, Ltd., 2009. Original Russian Text © N.G. Yakovlev, 2009, published in *Izvestiya AN. Fizika Atmosfery i Okeana, 2009, Vol. 45, No. 3, pp. 383–398.* [[download PDF on right sidebar](#)]
- Yakovlev N. G., (2009): Reproduction of the Large-Scale State of Water and Sea Ice in the Arctic Ocean in 1948–2002: Part 2. State of sea ice and snow cover, *Izvestiya, Atmospheric and Oceanic Physics, 2009, Vol. 45, No. 4, pp. 1-18 (In Russian).* [[download PDF on right sidebar](#)]

## 2008

- Gerdes, R., Karcher, M., Köberle, C., Fieg, K., 2008: Simulating the long term variability of liquid freshwater export from the Arctic Ocean, *The Role of the Northern Seas in Climate*, Editors: B. Dickson, J. Meincke and P. Rhines, Springer, Dordrecht, 405-426.
- Heimbach, P., 2008: The MITgcm/ECCO adjoint modeling infrastructure. *CLIVAR Exchanges*, 13(1), January 2008, pp. 13-17
- Holloway, G., 2008: Observing global ocean topography. *J. Geophys. Res.*, 113, C07054, doi:10.1029/2007JC004635
- Karcher, M., Gerdes, R., Kauker, F., 2008: Long-term variability of Atlantic water inflow to the Northern Seas: insights from model experiments, *The Role of the Northern Seas in Climate*, Editors: B. Dickson, J. Meincke and P. Rhines, Springer Dordrecht, 111-130.
- Kauker, F., C.Köberle, R.Gerdes, and M.Karcher, Reconstructing atmospheric forcing data for an ocean-sea ice model of the North Atlantic for the period 1900-2003, 2008: *J. Geophys. Res.*, 113, doi:10.1029/2006JC004023.
- Lemieux, J.-F., B. Tremblay, S. Thomas, J. Sedlacek, and L. A. Mysak (2008), Using the preconditioned Generalized Minimum RESidual (GMRES) method to solve the sea-ice momentum equation, *J. Geophys. Res.*, 113, C10004, doi:10.1029/2007JC004680.

- Kwok, R., E. C. Hunke, W. Maslowski, D. Menemenlis, and J. Zhang (2008). Variability of sea ice simulations assessed with RGPS kinematics. *J. Geophys. Res.*, 113, C11012, doi:10.1029/2008JC004783.
- Menemenlis, D., J.M. Campin, P. Heimbach, C. Hill, T. Lee, A. Nguyen, M. Schodlock and H. Zhang, 2008: ECCO2: High resolution global ocean and sea ice data synthesis. *Mercator Ocean Quarterly Newsletter*, 31, October 2008
- Proshutinsky, A., R. Gerdes, D. Holland, G. Holloway and M. Steele, 2007: AOMIP: coordinated activities to improve models and model predictions, *CLIVAR Exchanges* 44, January 2008.
- Proshutinsky, A., K. Dethloff, R. Doescher, J. C. Gascard, and F. Kauker, Toward Reducing Uncertainties in Arctic Climate Simulations, *EOS*, Vol. 89, No. 15, 16 April 2008, p. 150, 152.

## 2007

- Joyce, T., A. Proshutinsky, Greenland's Island Rule and the Arctic Ocean Circulation, *Journal of Marine Research*, 65, 639-653, 2007.
- Makshtas A., D. Atkinson, M. Kulakov, S. Shutilin, R. Krishfield, A. Proshutinsky (2007), Atmospheric forcing validation for modeling the central Arctic, *Geophys. Res. Lett.*, 34, L20706, doi:10.1029/2007GL031378.
- Lipscomb, W. H., E. C. Hunke, W. Maslowski, and J. Jakacki (2007), Ridging, strength, and stability in high-resolution sea ice models, *J. Geophys. Res.*, 112, C03S91, doi:10.1029/2005JC003355.
- Gerdes, R., and C. Köberle (2007), Comparison of Arctic sea ice thickness variability in IPCC Climate of the 20th Century experiments and in ocean–sea ice hindcasts, *J. Geophys. Res.*, 112, C04S13, doi:10.1029/2006JC003616.
- Golubeva, E. N., and G. A. Platov (2007), On improving the simulation of Atlantic Water circulation in the Arctic Ocean, *J. Geophys. Res.*, 112, C04S05, doi:10.1029/2006JC003734.
- Häkkinen, S., F. Dupont, M. Karcher, F. Kauker, D. Worthen, and J. Zhang (2007), Model simulation of Greenland Sea upper-ocean variability, *J. Geophys. Res.*, 112, C06S90, doi:10.1029/2006JC003687.
- Holloway, G., and A. Proshutinsky (2007), Role of tides in Arctic ocean/ice climate, *J. Geophys. Res.*, 112, C04S06, doi:10.1029/2006JC003643.
- Holloway, G., et al. (2007), Water properties and circulation in Arctic Ocean models, *J. Geophys. Res.*, 112, C04S03, doi:10.1029/2006JC003642.
- Huang, R. X., and X. Jin (2007), On the boundary conditions applied to the sea-ice coupled model, *J. Geophys. Res.*, 112, C04S12, doi:10.1029/2006JC003735.
- Hunke, E. C., and M. M. Holland (2007), Global atmospheric forcing data for Arctic ice-ocean modeling, *J. Geophys. Res.*, 112, C04S14, doi:10.1029/2006JC003640.
- Johnson, M., S. Gaffigan, E. Hunke, and R. Gerdes (2007), A comparison of Arctic Ocean sea ice concentration among the coordinated AOMIP model experiments, *J. Geophys. Res.*, 112, C04S11, doi:10.1029/2006JC003690.
- Karcher, M., F. Kauker, R. Gerdes, E. Hunke, and J. Zhang (2007), On the dynamics of Atlantic Water circulation in the Arctic Ocean, *J. Geophys. Res.*, 112, C04S02, doi:10.1029/2006JC003630.
- Martin, T., and R. Gerdes (2007), Sea ice drift variability in Arctic Ocean Model Intercomparison Project models and observations, *J. Geophys. Res.*, 112, C04S10, doi:10.1029/2006JC003617.
- Panteleev, G., A. Proshutinsky, M. Kulakov, D. A. Nechaev, and W. Maslowski (2007), Investigation of the summer Kara Sea circulation employing a variational data assimilation technique, *J. Geophys. Res.*, 112, C04S15, doi:10.1029/2006JC003728.
- Proshutinsky, A., and Z. Kowalik (2007), Preface to special section on Arctic Ocean Model Intercomparison Project (AOMIP) Studies and Results, *J. Geophys. Res.*, 112, C04S01, doi:10.1029/2006JC004017.
- Proshutinsky, A., I. Ashik, S. Häkkinen, E. Hunke, R. Krishfield, M. Maltrud, W. Maslowski, and J. Zhang (2007), Sea level variability in the Arctic Ocean from AOMIP models, *J. Geophys. Res.*, 112, C04S08, doi:10.1029/2006JC003916.
- Zhang, J., and M. Steele (2007), Effect of vertical mixing on the Atlantic Water layer circulation in the Arctic Ocean, *J. Geophys. Res.*, 112, C04S04, doi:10.1029/2006JC003732.

## 2006

- Dukhovskoy, D., M. Johnson, and A. Proshutinsky (2006), Arctic decadal variability from an idealized atmosphere-ice-ocean model: 1. Model description, calibration, and validation, *J. Geophys. Res.*, 111, C06028, doi:10.1029/2004JC002821.
- Dukhovskoy, D., M. Johnson, and A. Proshutinsky (2006), Arctic decadal variability from an idealized atmosphere-ice-ocean model: 2. Simulation of decadal oscillations, *J. Geophys. Res.*, 111, C06029, doi:10.1029/2004JC002820.
- Hibler, W.D., III, A. Roberts, P. Heil, A. Proshutinsky, H. Simmons and J. Lovick, Modeling M2 tidal variability in arctic sea-ice drift and deformation, *Annals of Glaciology*, 44, 2006, 418-428
- Hofmann, M. and M. A. Morales Maqueda, 2006: Performance of a second-order moments advection scheme in an Ocean General Circulation Model, *J. Geophys. Res.*, III, C05006, doi:10.1029/2005JC003279.
- Morales Maqueda, M. A. and G. Holloway (2006), Second Order Moment advection scheme applied to Arctic Ocean simulation, *Ocean Modeling*, 14, 197-221.
- Richter-Menge, J. Overland, A. Proshutinsky, V. Romanovsky, J.C. Gascard, M. Karcher, J. Maslanik, D. Perovich, A. Shiklomanov and D. Walker, (2006) Arctic, In: State of the Climate in 2005, Ed. K.A. Shen, Special supplement to the Bulletin of the American Meteorological Society, vol 87, No. 6, June 2006, pages: S46-S52, 102 p.

- Rinke, A., W. Maslowski, K. Dethloff, and J. Clement (2006), Influence of sea ice on the atmosphere: A study with an Arctic atmospheric regional climate model, *J. Geophys. Res.*, 111, D16103, doi:10.1029/2005JD006957.

## 2005

- Drange, H., Gerdes, R., Gao, Y., Karcher, M., Kauker, F., Bentsen, M., 2005: Ocean General Circulation Modelling of the Nordic Seas. AGU monograph *Climate Variability of the Nordic Seas*, Bjerknes Centre for Climate Research, Bergen, Norway, (in print).
- Gerdes, R., Hurka, J., Karcher, M., Kauker, F., Koeberle, C., 2005: Simulated history of convection in the Greenland and Labrador Seas 1948-2001. AGU monograph *Climate Variability of the Nordic Seas*, Bjerknes Centre for Climate Research, Bergen, Norway, (in press).
- Karcher, M., Gerdes, R., Kauker, F., Koeberle, C., Yashayev, I., 2005: Arctic Ocean change heralds North Atlantic freshening. *GRL*, (in revision).
- Kauker, F., R. Gerdes, M. Karcher, and C. Koeberle, 2005: Impact of North Atlantic Current changes on the Nordic Seas and the Arctic Ocean. *J. Geophys. Res.*, (accepted).
- Polyakov, I. V., Beszczynska, A., Carmack, E. C., Dmitrenko, I. A., Fahrbach, E., Frohlov, I. E., Gerdes, R., Hansen, E., Holfort, J., Ivanov, V. V., Johnson, M. A., Karcher, M., Kauker, F., Morison, J., Orvik, K. A., Schauer, U., Simmons, H. L., Skagseth, O., Sokolov, V. T., Steele, M., Timokhov, L. A., Walsh, D., Walsh, J. E., 2005: One more step toward a warmer Arctic. *GRL*, (accepted).
- Proshutinsky, A., Yang, J., Gerdes, R., Karcher, M., Kauker, F., Hakkinen, S., Hibler, W., Holland, D., Maqueda, M., Holloway, G., Hunke, E., Maslowski, W., Steele, M., Zhang, J., 2005: Arctic Ocean Study - Synthesis of Model Results and Observations. *EOS, Transactions, American Geophysical Union*, (in revision).
- Uotila, P., D.M. Holland, M.A.M. Maqueda, S. Hakkinen, G. Holloway, M. Karcher, F. Kauker, M. Steele, N. Yakovlev, J. Zhang, and A. Proshutinsky, 2005: An energy-diagnostics intercomparison of coupled ice-ocean arctic models. *Ocean Modelling*, DOI: 10.1016/j.ocemod.2004.11.003.

## 2004

- Posters from AOMIP Special Session of Bjerknes Centenary 2004 (conference): Climate Change in High Latitudes.
- Dukhovskoy, D. S., M. A. Johnson, and A. Proshutinsky, 2004: Arctic decadal variability: An auto-oscillatory system of heat and fresh water exchange. *Geophys. Res. Lett.*, 31, L03302, doi:10.1029/2003GL019023.
- Goosse H., R. Gerdes, F. Kauker and C. Koeberle, 2004: Influence of the exchanges between the Atlantic and the Arctic on sea-ice volume variations during the period 1948-1997. *Journal of Climate*, 17 (3) 1294-1305.
- Hakkinen, S., and A. Proshutinsky, 2004: Freshwater content variability in the Arctic Ocean. *J. Geophys. Res.*, 109, C03051, doi:10.1029/2003JC0011940.
- Hu, Z.-Z., S. Kuzimina, L. Bengtsson, and D.M. Holland, 2004: Mean and uncertainty of Arctic sea-ice change and their connection with Arctic climate change in CMIP2 simulations. *J. Geophys. Res.*, (accepted)
- Karcher, M. J., Gerland, S., Harms, I., Iosjpe, M., Heldal, H., Kershaw, P. J., Sickel, M., 2004: The dispersion of technetium-99 in the Nordic Seas and the Arctic Ocean: a comparison of model results and observations. *Journal of environmental radioactivity*, Vol.74, 1-3, 2004, pp. 185-198.
- Karcher, M. and J., Harms, I. H., 2004: Arctic Ocean Shelf-Basin Interaction. Proceedings of the Arctic Climate Impact Assessment (ACIA) workshop on Arctic Climate Feedback Mechanisms, 17-19 November, Tromsø, Rapport of the Norwegian Polar Institutt No. 124, Tromsø, Norway, 32-34.
- Maslowski, W., D. Marble, W. Walczowski, U. Schauer, J. L. Clement, and A. J. Semtner, 2004: On climatological mass, heat, and salt transports through the Barents Sea and Fram Strait from a pan-Arctic coupled ice-ocean model simulation. *J. Geophys. Res.*, 109, C03032, doi:10.1029/2001JC001039.
- Proshutinsky, A., I. M. Ashik, E. N. Dvorkin, S. Häkkinen, R. A. Krishfield, and W. R. Peltier, 2004: Secular sea level change in the Russian sector of the Arctic Ocean. *J. Geophys. Res.*, 109, C03042, doi:10.1029/2003JC002007.
- Steiner, N., Holloway, G., Gerdes, R., Hakkinen, S., Holland, D., Karcher, M. J., Kauker, F., Maslowski, W., Proshutinsky, A., Steele, M., Zhang, J., 2004: Comparing modeled streamfunction, heat and freshwater content in the Arctic Ocean. *Ocean Modelling*, 6, 265-284.
- Wang, J., Q. Liu, M. Jin, M. Ikeda and F. Saucier, 2004: A coupled ice-ocean model in the pan Arctic and the northern North Atlantic Ocean: Simulation of seasonal cycles. *J. Phys. Oceanogr.*, (conditionally accepted).
- Wang, J., M. Ikeda, S. Zhang and G. Gerdes, 2004: Linking the northern hemisphere sea ice reduction trend and the quasi-decadal Arctic sea ice oscillation. *Climate Dyn.*, (accepted).
- Zhang, J., M. Steele, D.A. Rothrock, and R.W. Lindsay, 2004: Increasing exchanges at Greenland-Scotland Ridge and their links with the North Atlantic Oscillation and Arctic sea ice. *Geophys. Res. Lett.*, (in press).

## 2003

- Gerdes, R., Karcher, M., Kauker, F., Schauer, U., 2003: Causes and development of repeated Arctic Ocean warming events. *Geophysical Research Letters*, Vol.30, No.19, 1980. DOI: 10.1029/2003GL018080.
- Karcher, M.J., Kulakov, M., Pivovarov, S., Schauer, U., Kauker, F., Schlitzer, R., 2003: Atlantic Water flow to the Kara Sea -

comparing model results with observations. In: 'Siberian River Runoff in the Kara Sea: Characterisation, Quantification, Variability and Environmental Significance', Stein, Fahl, Fütterer, Galimov (Eds.), Elsevier, Proceedings in Marine Science, 47-69.

- Karcher, M.J., Gerdes, R., Kauker, F., Köberle, C., 2003: Arctic warming: Evolution and spreading of the 1990s warm event in the Nordic seas and the Arctic Ocean. *J. Geophys. Res.*, 108, C2, 10.1029/2001JC001265.
- Kauker, F., Gerdes, R., Karcher, M., Köberle, C., Lieser, J.L., 2003: Variability of Arctic and North Atlantic sea ice: A combined analysis of model results and observations from 1978 to 2001. *Journal of Geophysical Research*, 108(C6), 3182. DOI: 10.1029/2002JC001573.
- Lindsay R.W., and A. P. Makshtas, 2003: Air-sea interaction in the presence of the Arctic pack ice. In: Arctic Environment variability in the context of Global change, eds. L.P. Bobylev, K. Ya. Kondratyev and O.M. Johannessen, Springer, Praxis Publishing, Chichester, UK, p. 203-236.
- Proshutinsky, A., 2003: Circulation of water and ice. In: Arctic Environment variability in the context of Global change, Eds. L. P. Bobylev, K. Ya. Kondratyev and O.M. Johannessen, Springer, Praxis Publishing, Chichester, UK, p. 172-180.
- Proshutinsky, A., 2003: Modeling of ocean and sea ice circulation. In: Arctic Environment variability in the context of Global change, Eds. L. P. Bobylev, K. Ya. Kondratyev and O.M. Johannessen, Springer, Praxis Publishing, Chichester, UK, p. 181-202.
- Yakovlev, N. G., 2003: Coupled model of ocean general circulation and sea ice evolution in the Arctic Ocean. *Izvestiya, Atmospheric and Oceanic Physics*, 39, No 3, pp. 355-368.

## 2002

- Abstracts from Special Session of AGU Spring Meeting 2002: Comparing Arctic Models
- Karcher, M. J. and J.M. Oberhuber, 2002: Pathways and modification of the upper and intermediate waters of the Arctic Ocean. *Geophys. Res. Lett.*, 10.1029/2000JC000530.

## 2001

- Proshutinsky, A., M. Steele, J. Zhang, G. Holloway, N. Steiner, S. Häkkinen, D.M. Holland, R. Gerdes, C. Köberle, M. Karcher, M. Johnson, W. Maslowski, Y. Zhang, W. Hibler, J. Wang, 2001: The Arctic Ocean Model Intercomparison Project (AOMIP). *EOS*, 82(51), 637-644.
- Steele, M., W. Ermold, G. Holloway, S. Häkkinen, D.M. Holland, M. Karcher, F. Kauker, W. Maslowski, N. Steiner, and J. Zhang, 2001: Adrift in the Beaufort Gyre: A model intercomparison. *Geophys. Res. Lett.*, 28, 2935-2838.

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