

curriculum vitae

Arne Melsom

Biographical data

- e-mail: arne.melsom@met.no
- Position: Senior scientist
- Degrees: 1987: Cand. scient. (MS),
Institute of Geophysics, University of Oslo
1992: Dr. scient. (PhD),
Institute of Geophysics, University of Oslo
- Award: 1994: Young Scientist Publication Award,
European Geophysical Society
- Professional career: 1987-88: Research assistant,
Institute of Geophysics, University of Oslo
1989-92: Graduate research fellow,
Institute of Geophysics, University of Oslo
1992-93: Senior scientist,
Division for Research and Development,
Norwegian Meteorological Institute
1994-95: Postdoctoral research fellow,
Norwegian Research Council.
Guest investigator at Center for Ocean-Atmospheric
Prediction Studies, Florida State University, USA (1994)
1996-: Senior scientist,
Division for Research and Development,
Norwegian Meteorological Institute

Note! *This document contains hyper-links that are active when using properly enabled software. An electronic version is available from*

http://projects.met.no/DecCast/documents/cv_DecCast_AM.pdf

Selected publications with relevance for
Decadal forecast skill in the North Atlantic sector:
the role of the ocean

Peer-reviewed publications

- Mauritzen, C., **A. Melsom**, and R.T. Sutton, 2012: Importance of density-compensated temperature change for deep North Atlantic Ocean heat uptake. *Nature Geo.*, **5**, 905-910. doi:10.1038/ngeo1639 (Authors' version [here](#))
- Melsom, A.**, F. Counillon, J.H. LaCasce, L. Bertino, 2012: Forecasting search areas using ensemble ocean circulation modeling. *Ocean Dyn.*, **62**(8), 1245-1257. doi:10.1007/s10236-012-0561-5 (Authors' version [here](#))
- Orsolini, Y.J., R. Senan, R.E. Benestad, and **A. Melsom**, 2012: Autumn atmospheric response to the 2007 low Arctic sea ice extent in coupled oceanatmosphere hindcasts. *Clim. Dyn.*, **38**, 2437-2448. doi:10.1007/s00382-011-1169-z
- R.E. Benestad, R. Senan, M. Balmaseda, L. Ferranti, Y. Orsolini, and **A. Melsom**, 2011: Sensitivity of summer 2-m temperature to sea ice conditions. *Tellus*, **63A**, 334-337. doi:10.1111/j.1600-0870.2010.00488.x
- Melsom, A.**, 2010: Validation of an ocean model ensemble. In: *Coastal to global operational oceanography: Achievements and Challenges*. Ed.s: Dahlin, Bell, Flemming, Petersson. EuroGOOS publication no. 28, SMHI, Norrköping, Sweden. pp. 253-259. (Author's version [here](#))
- Melsom, A.**, V.S. Lien, and W.P. Budgell, 2009: Using the Regional Ocean Modeling System (ROMS) to improve the ocean circulation from a GCM 20th century simulation. *Ocean Dyn.*, **59**, 969-981. doi:10.1029/2007GL030808
- Melsom, A.**, 2005: Mesoscale activity in the North Sea as seen in ensemble simulations. *Ocean Dyn.*, **55**(3-4), 338-350. doi:10.1007/s10236-005-0016-3. (Author's version [here](#))
- Melsom, A.**, E.J. Metzger, and H.E. Hurlburt, 2003: Impact of remote oceanic forcing on Gulf of Alaska sea levels and mesoscale circulation. *J. Geophys. Res.*, **108**(C11), 3346. doi:10.1029/2002JC001742
- Benestad, R.E. and **A. Melsom**, 2002: Is there a link between the unusually wet autumns in southeastern Norway and SST anomalies? *Climate Res.*, **23**, 67-79.
- Melsom, A.**, S.D. Meyers, H.E. Hurlburt, E.J. Metzger and J.J. O'Brien, 1999: ENSO effects on Gulf of Alaska eddies. *Earth Interactions*, **3**, 1-30. doi:10.1175/1087-3562(1999)003<0001:EEOGOA>2.3.CO;2
- Meyers, S.D., **A. Melsom**, G.T. Mitchum and J.J. O'Brien, 1998: Detection of the oceanic fast Kelvin wave teleconnection during ENSO. *J. Geophys. Res.*, **103**, 27.655-27.663. doi:10.1029/98JC02402

Reports

- Melsom, A.**, M. Simonsen, and L. Bertino, 2011: Scientific Validation Report (ScVR) for V1 Real-time Forecasts. *MyOcean project report MYO-WP05-ScCV-RT-ARC-METNO-OSLO-NO*, 21 pp.
- Melsom, A.**, 2010: Perturbing the ocean initial state from NAO regression. *met.no note 1/2010*, Norwegian Meteorological Institute. 7 pp.
- Melsom, A.**, 2010: Validation of sea ice concentration in the myOcean Arctic Monitoring and Forecasting Centre. *met.no note 12/2010*, Norwegian Meteorological Institute. 8 pp.
- Melsom, A.**, and I. Fossum, 2009: Validation of an ocean model ensemble for the Barents Sea and the northeastern Nordic Seas. Norwegian Meteorological Institute. *met.no report 2/2009*, Norwegian Meteorological Institute. 23 pp.
- Melsom, A.**, 2009: Ocean – sea ice – atmosphere heat fluxes over the Arctic Ocean. *met.no note 14/2009*, Norwegian Meteorological Institute. 7 pp.
- Melsom, A.**, 2004: Nondeterministic variability in the Skagerak and the North Sea: A pilot study. *met.no report 11/2004*, Norwegian Meteorological Institute. 19 pp.

Popular science publications

- Benestad, R.E., Y. Orsolini, **A. Melsom**, I.K.T. Kindem, and R. Senan, 2012: *Havisens rolle som sesongvarsler* (The role of sea ice as a predictor on seasonal time scales). *Klima*, **2012/1**, 32-33.
- Melsom, A.**, 2011: Statistics of trajectories from ocean currents. *META 01/2011*, The Norwegian metacenter for computational science (NOTUR), 14-16.
- Melsom, A.**, V.S. Lien, and W.P. Budgell, 2009: Modelling av havklima i Barentshavet (Modeling the Barents Sea oceanic climate). *Klima*, **2009/6**, 37-38.
- Benestad, R.E., R. Senan, Y. Orsolini, **A. Melsom**, and I.T. Kindem, 2008: Havis kan være jokeren i langtidsvarslene (Sea ice could be a wild card in seasonal forecasts). *Klima*, **2008/6**, 36-37.
- Røed, L.P., C. Mauritzen, **A. Melsom**, and J. Debernard, 2004: *New ice age in the midst of global warming?* (Ny istid under global oppvarming?). *Cicerone*, **13(2)**, 14-15.
- Melsom, A.**, 2007a: *IPCC og endring i havnivå* (IPCC and sea level change). *forskning.no*.
- Melsom, A.**, 2007b: *Satellittmlinger av havnivå* (Sea level observations from satellites). *forskning.no*.
- Melsom, A.**, 2002: *Liten samvariasjon i overflatetemperatur mellom Atlanterhavet og Norskehavet* (Low correlations between sea surface temperatures in the Atlantic Ocean and the Norwegian Sea). *Cicerone*, **11(4)**, 22-24.
- Melsom, A.**, 2001: *Fjernvirkninger i havet: Datamaskinen som laboratorium* (Oceanic teleconnection: The computer laboratory). *Cicerone*, **10(1)**, 24-27.