SOFTWARE LICENCE AGREEMENT NorESM
(version 1.0, 1 Sept. 2014)

NorESM OWNER,
currently represented through:
1. Univ. of Bergen, Geophysical Institute, Bergen (UiB),
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3. Nansen Environmental and Remote Sensing Centre, Bergen (NERSC), 4. Norwegian Meteorological Institute, Oslo (Met.no),
5. University of Oslo, Meteorology and Oceanography Section, Department of Geosciences (UiO).
6. Norwegian Institute for Air Research, Kjeller (NILU).
7. Center for International Climate and Environmental Research, Oslo (CICERO).

The NORESM OWNER is developing and providing the Earth system model NorESM (Norwegian Earth System Model) which, at present based on:
- The Community Earth System Modelling (CESM) and Community Climate System Model (CCSM) frameworks, originally developed at various universities and and research institutions in USA, with the National Center for Atmospheric Research (NCAR) as a hub.
- Atmosphere model CAM, versions originally developed for the CESM version released in July 2011 (for NorESM1_ME) and for the CCSM released in April 2011 (for NorESM1_M) in USA, modified by University of Oslo and the Norwegian Meteorological Institute (and others through co-operation, such as, e.g., University of Stockholm and University of Helsinki) to arrive at CAM4-OSLO
- Land surface and land biogeochemistry model CLM, originally developed for CESM/CCSM in USA
- Ocean physics model MICOM, originally developed at University of Miami, USA, with modifications carried out at NERSC, University of Bergen, and UniResearch AS
- Sea ice model CICE, originally developed for CESM/CCSM in USA, with modifications the Norwegian Meteorological Institute and University of Bergen.
- Ocean biogeochemistry model HAMOCC, originally developed at Max Planck Institute for Meteorology, Germany, adopted for isopycnic coordinates by University of Bergen and UniResearch AS

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Further, users of HAMOCC must sign the license agreement for use of the MPI-ESM (which includes HAMOCC) Max Planck Institute of Meteorology (HAMOCC) as our isopycnic version of HAMOCC is based on the Max Planck code originally. (The signing can be done easily through the internet, see: http://www.mpimet.mpg.de/en/science/models/model-distribution.html). This license agreement addresses only those parts of NorESM which have been developed by NorESM OWNER.

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Final Remarks
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APPENDIX

Acronyms/explanations
CESM: Community Earth System Model
NCAR: National Center for Atmospheric Research
CAM: Community Atmosphere Model
CLM: Community Land Model
MICOM: Miami Isopycnic Coordinate Ocean Model
NERSC: Nansen Environmental and Remote Sensing Center
CICE: Community Sea Ice ModelHAMOCC: HAMburg Ocean Carbon Cycle model

Publications

NorESM1-M [intermediate resolution version of NorESM]:

Bentsen, M., Bethke, I., Debernard, J. B., Iversen, T., Kirkevåg, A., Seland, Ø. Drange, H., Roelandt, C., Seierstad, I. A., Hoose, C., and Kristjansson, J. E. (2013): The Norwegian Earth System Model, NorESM1-M - Part 1: Description and basic evaluation of the physical climate, Geosci. Model Dev., 6, 687-720, doi:10.5194/gmd-6-687-2013.

Iversen, T., M. Bentsen, I. Bethke, J. B. Debernard, A. Kirkevåg, Ø. Seland, H. Drange, J. E. Kristjansson, I. Medhaug, M. Sand, and I. A. Seierstad (2013): The Norwegian Earth System Model, NorESM1-M - Part 2: Climate response and scenario projections, Geosci. Model Dev., 6, 389-415, doi:10.5194/gmd-6-389-2013

Kirkevåg, A. T. Iversen, Ø. Seland, C. Hoose, J. E. Kristjáson, H. Struthers, A. Ekman, S. Ghan, J. Griesfeller, D. Nilsson, and M. Schulz (2013): Aerosol-climate interactions in the Norwegian Earth System Model - NorESM1-M, *Geosci. Model Dev.*, 6, 207-244, doi:10.5194/gmd-6-207-2013

NorESM1-ME [intermediate resolution version of NorESM with carbon cycle]:

Tjiputra J. F., C. Roelandt, M. Bentsen, D. M. Lawrence, T. Lorentzen, J. Schwinger, Ø. Seland, and C. Heinze (2013): Evaluation of the carbon cycle components in the Norwegian Earth System Model (NorESM), *Geosci. Model Dev.,* 6, 301-325, www.geosci-model-dev.net/6/301/2013/

NorESM1-L [low resolution version of NorESM]:

Zhang, Z. S., K. Nisancioglu, M. Bentsen, J. Tjiputra, I. Bethke, Q. Yan, B. Risebrobakken, C. Andersson, and E. Jansen (2012): Pre-industrial and mid-Pliocene simulations with NorESM-L, *Geosci. Model Dev. Discuss.*, 5, 119-148, www.geosci-model-dev-discuss.net/5/119/2012/, doi:10.5194/gmdd-5-119-2012