



Polar Climate Working Group

Co-Chairs: Marika Holland (NCAR) and Elizabeth Hunke (LANL)

Liaison: David Bailey (NCAR)

Antarctic Liaison: Laura Landrum (NCAR)

We thank NSF-OPP for Funding Support for Liaison Positions



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8:30 a.m. Co-chairs – Welcome

8:40 a.m. Jennifer Kay, Marika Holland, Yen-Ting Hwang, and Cecilia Bitz – Definite, possible, and unlikely mechanisms for enhanced Arctic warming in coupled climate models

9:00 a.m. Alex Jahn – Arctic Ocean simulation of the CCSM4

9:20 a.m. Justin Wettstein – Internal variability's importance in simulated 21st century sea ice loss

9:40 a.m. Nicole Jeffery – The 20th Century Southern Ocean in the CCSM4

10:00 a.m. Cecilia Bitz, I. M. Povani and C. Kirkman – Does the ozone hole drive Antarctic sea ice to expand in an eddy resolving ocean of a climate model?

10:20 a.m. Poster introductions and discussion

10:30 a.m. Break

11:00 a.m. Meibing Jin – Assessing ocean mixing under heterogeneous sea ice cover and subgrid-scale brine rejection parameterization in climate models

11:30 a.m. Ute Herzfeld – Classification and complexity of Arctic Sea Ice and relevance for modeling

11:40 a.m. Elizabeth Hunke – CESM melt pond update

12:00 p.m. Adjourn

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PCWG Special Collection Submissions

Jahn, A, D.A. Bailey, C.M. Bitz, M.M. Holland, E.C. Hunke, J.E. Kay, W.H. Lipscomb, J.A. Maslanik, D. Pollak, K. Sterling, and J. Stroeve, 2011: **Late 20th century** simulation of Arctic sea ice and ocean properties in CCSM. *J. Climate*, submitted.

Holland, M.M., D.A. Bailey, B.P. Briegleb, B. Light, and E. Hunke, 2011: Improved sea ice **shortwave radiation physics** in CCSM4: The impact of melt ponds and black carbon. *J. Climate*, submitted.

Vavrus, S. J., M. M. Holland, A. Jahn, D. A. Bailey, and B. A. Blazey, 2011: **21st-Century Arctic Climate Change** in CCSM4., *J. Climate*, submitted.

De Boer, G., W. Chapman, J. E. Kay, B. Medeiros, M. D. Shupe, S. Vavrus, and J. Walsh, 2011: A Characterization of the Present-Day **Arctic Atmosphere** in CCSM4, *J. Climate*, submitted

Landrum, L., M. M. Holland, D. Schneider, and E. Hunke, 2011: **Antarctic Sea Ice** Climatology, Variability, and Late 20th-Century Change in CCSM4, *J. Climate*, submitted

PCWG Input on other JClim Papers

- **The Community Climate System Model version 4.**
Gent, P. R., G. Danabasoglu, L. J. Donner, M. M. Holland, E. C. Hunke, S. R. Jayne, D. M. Lawrence, R. B. Neale, P. J. Rasch, M. Vertenstein, P. H. Worley, Z. -L. Yang, and M. Zhang.
- **The Low Resolution CCSM4.**
C. A. Shields, D. A. Bailey, G. Danabasoglu, M. Jochum, J. T. Kiehl, S. Levis, and S. Park.
- **The Southern Ocean and its Climate in CCSM4.**
Weijer, W., B. M. Sloyan, M. E. Maltrud, N. Jeffery, M. W. Hecht, C. A. Hartin, E. V. Seville, I. Wainer, and L. Landrum
- **Climate Sensitivity in the Community Climate System Model Version 4.**
Bitz, C. M., K. M. Shell, P. R. Gent, D. Bailey, G. Danabasoglu, K. C. Armour, M. M. Holland, and J. T. Kiehl

Discussion

- Is the PCWG adequately supporting community needs?
 - University collaborators/participants?
 - Are there communities that we should try to entrain?
 - Are there societal dimension issues that we should help address?
 - Should we better coordinate with DOE activities?
 - Are there assessments/other activities we should take an active role in?
- Are there better ways to assess our interaction with the community?
 - Liaison metrics? Other ideas?
- Should our winter meeting be a topical workshop?
 - If so, what should it address?