

# Polar Climate Working Group

## Feb 28-March 1

# CCSM4 J. Climate Special Issue

- 5 PCWG Contributions
- Initial drafts due in March, submission by May 1
- CCSM4 IPCC Run output released in May
- Improved sea ice **shortwave radiation physics** in CCSM4: The impact of melt ponds and black carbon. Holland, Bailey, Briegleb, Light, and Hunke.
- The **Arctic atmospheric** simulation of CCSM4. de Boer, Chapman, Kay, Vavrus, Walsh
- Late 20<sup>th</sup> Century simulation of **Arctic sea ice and ocean**. Jahn, Sterling, Holland, Kay, Maslanik, Bitz, Bailey, Hunke, Lipscomb, Pollak, Stroeve
- 20th/21st century **Arctic climate change** in CCSM4. Vavrus, Bailey, Holland, Jahn, Kay, Maslanik
- **Antarctic sea ice** variability and change in CCSM4. Landrum, Holland, Schneider Hunke

# CESM J. Climate Special Issue

- Drafts by June 1
- Papers submitted by August 1
- CAM5 papers
- Ocean/Land BGC papers - Carbon cycle
- Chemistry
- WACCM
- Land Ice

# CCSM4 IPCC Run output

- PI (Year=1850) Control Run
- 6 - 20<sup>th</sup> Century (1850-2005) Ensemble Members
- 5 - RCP8.5 Ensemble Members
- 5 - RCP4.5 Ensemble Members
- 5 - RCP2.6 Ensemble Members
- A single ensemble member (MOAR) from each run has daily output from each component model

# PCWG CSL Request

- For April 1, 2011 – June 30, 2012
- Development:
  - General ice model improvements (ponds, snow, salinity)
  - Ocean freshwater tracers
  - Arctic BGC
  - Sea ice heterogeneity CPT
- Production
  - Freshwater studies (tracers, changing ice melt, snow)
  - Arctic Ocean BGC
  - Ice-atmosphere coupling
  - Atmospheric response to ice loss
  - Predictability
  - Contribution (6) to 30-member ensemble for 2005-2034