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**CONTROL ID:** 1493081

**TITLE:** Bayesian Multimodel Projection of Temperature Change in Eurasia

**ABSTRACT BODY:** Global coupled Atmospheric-Ocean General Circulation Models (coupled GCMs) are the modelling tools traditionally used for theoretical investigations of the mechanisms of climatic changes. With the help of GCMs, we can not only simulate the present-day and project future climatic changes, but also separate natural climate variability from anthropogenic effects. It is generally believed that multi-model ensembles are superior to single models, and that the ensemble may even outperform the best single participating model. This study uses the Bayesian multimodel approach developed by Duan and Phillips (2010, JGR) to study the trend in temperature change in Eurasia using climate simulations from the Climate Model Intercomparison Projection Phase 5 (CMIP5). Observed data from 1901-2005 are used for this study. The trend is estimated based on change in decadal scale. Bayesian weights are computed for each 10-year period. The change in Bayesian weights is analyzed. The suitability of using the weights computed from the past data to predict temperature in the future is evaluated.

**CURRENT SECTION/FOCUS GROUP:** Global Environmental Change

**CURRENT SESSION:** GC019. Environmental, Socio-economic and Climatic Change in Northern Eurasia and Their Feedbacks to the Global Earth System

**INDEX TERMS:** [1637] GLOBAL CHANGE / Regional climate change, [1600] GLOBAL CHANGE, [1630] GLOBAL CHANGE / Impacts of global change.

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**TITLE OF TEAM:**