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CONTROL ID: 1203943

TITLE: Prediction And Predictability Of Trend In Temperature Change In China Using Bayesian Multimodel Ensemble Approach

PRESENTATION TYPE: Assigned by Committee (Oral or Poster)

CURRENT SECTION/FOCUS GROUP: Global Environmental Change (GC)

CURRENT SESSION: GC16. Regional Climate Impacts 7. Environmental, Socio-economic and Climatic Changes in Northern Eurasia and their Feedbacks to the Global Earth System: The Role of Remote Sensing and Integrative Studies

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ABSTRACT BODY: Climate models are being used to simulate climate of the past and to predict that of the future. Different models provide different estimates of the climate. Many studies have indicated that multimodel ensemble approach would provide climate prediction with better skills. This study uses the Bayesian multimodel approach developed by Duan and Phillips (2010, JGR) to study the trend in temperature change in China using climate simulations from the Climate Model Intercomparison Projection Phase 3 (CMIP3). Observed data from 1960-1999 are used for this study. The trend is estimated based on change in 10-year moving average temperature. 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.

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INDEX TERMS: [1627] GLOBAL CHANGE / Coupled models of the climate system , [1626] GLOBAL CHANGE / Global climate models.