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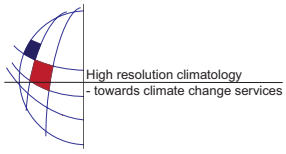

Impact of snow on the NH autumn and winter circulation in an ensemble of coupled forecasts

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The impact of land boundary conditions on predictability from the seasonal to decadal time-scale and on forcing atmospheric teleconnections is now the focus of renewed attention. The international GLACE initiative, for example, aimed at assessing the impact of soil moisture on forecasts of temperature and precipitation during the warm season. Recent studies indicate that the Eurasian snow pack can influence the northern hemisphere autumn and winter circulation. To test the influence of snow initialisation on forecasts, we have performed a suite of coupled AOGCM high-resolution (T255) simulations with the ECMWF ensemble forecast system. Pairs of two-month forecasts were launched from several start dates from October through December over the years 2004-2009, with either realistic initialization of snow variables based on ERA INTERIM re-analyses, or else with randomized initial snow variables. Preliminary results about these simulations and circulation anomalies linked to the Eurasian snow cover will be described.