



## **Sea ice simulations for the Last Millennium – the role of internal versus forced variability**

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Climate Model simulations of recent trends in sea ice vary strongly over the instrumental records and before. In order to assess the role of internal climate variability versus forced variability in the simulated Arctic sea ice cover, we will present an analysis from the Community Earth System Model (CESM) Last Millennium Ensemble (years 850-2005), which includes 10 fully-forced ensemble members as well as 20 single forcing ensemble members. A comparison with the CESM Large Ensemble for 1920-2100 will complement the analysis, allowing a comparison of past variability of sea ice against projected future sea ice variability. Analyzing this large ensemble of sea ice simulations that span the last Millennium and the 21st century will allow us to assess the role of sea ice feedbacks under a variety of changed climates and forcings.