

AARHUS UNIVERSITY
EXTERNAL SEMINAR
DEPARTMENT OF ENVIRONMENTAL SCIENCE
Frederiksborgvej 399, 4000 Roskilde
12 April 2019, 13:00 –14:00



Venue: Aarhus University, Risø Campus, Roskilde, the Pavilion

Title: The impact of solar and volcanic forcing investigated in model-data climate reconstructions of seasonal resolution

Speaker: Jesper Sjolte, Researcher, Lund University, Sweden

Abstract: The impact of solar and volcanic forcing is debated in terms of magnitude, timescales and mechanisms. Here I use seasonal reconstructions of sea level pressure and temperature, based on oxygen isotope data from Greenland ice cores and a model simulation using an isotope enabled climate model, to investigate the climate impact of solar and volcanic forcing. For both summer and winter, I see no consistent correlation between solar forcing and the North Atlantic Oscillation (NAO). However, there is a consistent solar impact on secondary circulation modes. On the other hand, low latitude volcanic eruptions cause a persistent positive NAO, while low latitude volcanic eruptions cause a persistent negative NAO for both seasons. I will also discuss the impact of the forcings in context of atmosphere-ocean interaction.

Host: Ulas Im, Senior Scientist, Atmospheric Modelling, Department of Environmental Science, Aarhus University on behalf of iClimate (Interdisciplinary Centre for Climate Change)

External Guests interested in attending the presentation should e-mail Department Secretary Christel Ege-Johansen, cej@envs.au.dk

