

Online Supplemental Material

Seasonal evolution of the dominant modes of the Eurasian snowpack and atmospheric circulation from autumn to the subsequent spring and the associated surface heat budget

SUN Bo^{a,b,c}

^aCollaborative Innovation Center on Forecast and Evaluation of Meteorological Disasters, Nanjing University of Information Science & Technology, Nanjing 210044, China; ^bInternational Pacific Research Center and Department of Atmospheric Sciences, University of Hawaii at Manoa, Honolulu, HI 96822, USA; ^cNansen-Zhu International Research Centre, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing 100029, China

This file includes:

Supplementary Figure S1–S4

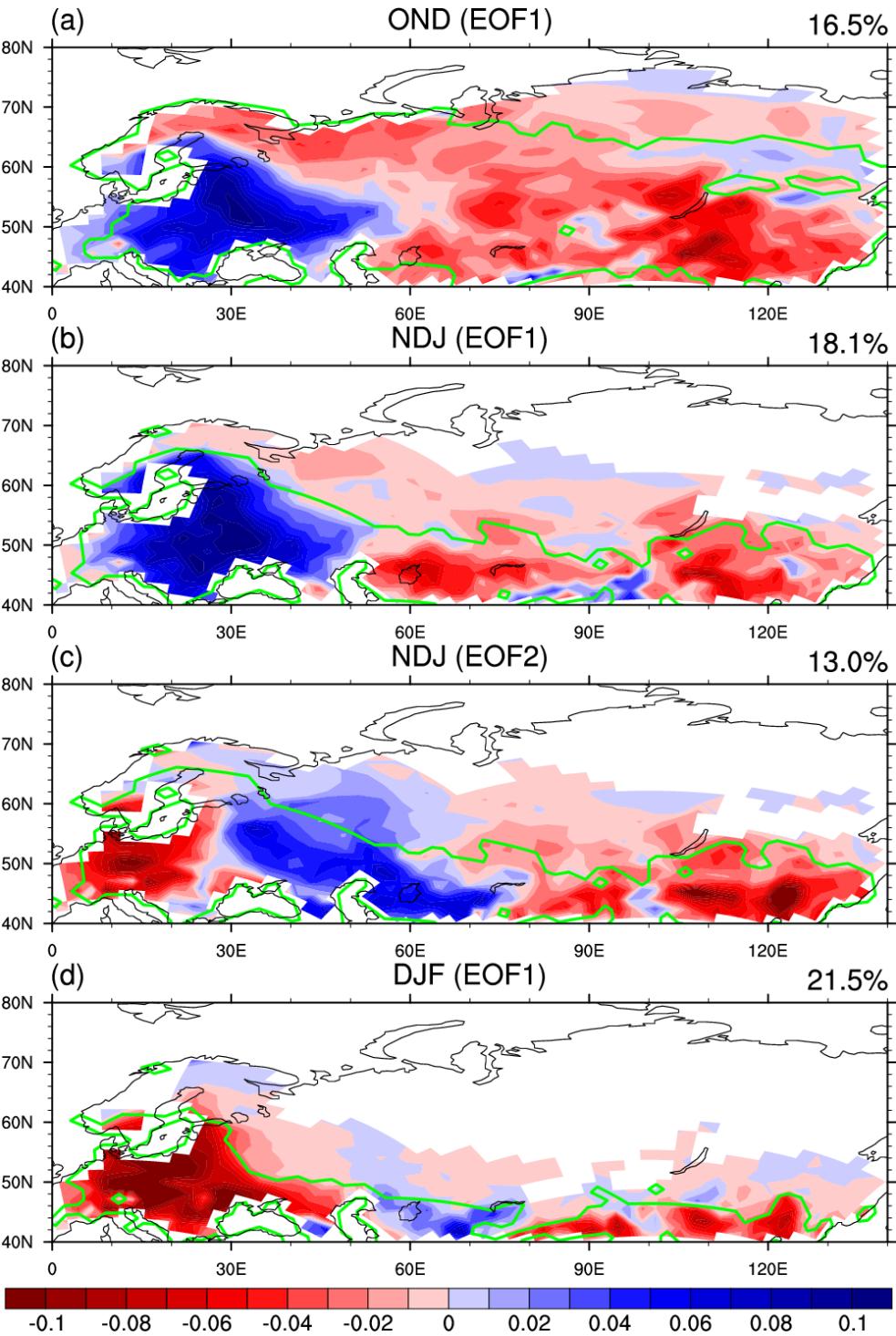


Figure S1. Dominant modes of the SCF during (a) OND, (b) NDJ, and (d) DJF. (b) is the second EOF mode of the SCF during NDJ. The value in the top-right corner of each sub-plot denotes the percentage of variances explained by the corresponding EOF mode. The green contours denote the snow transient regions during the corresponding season.

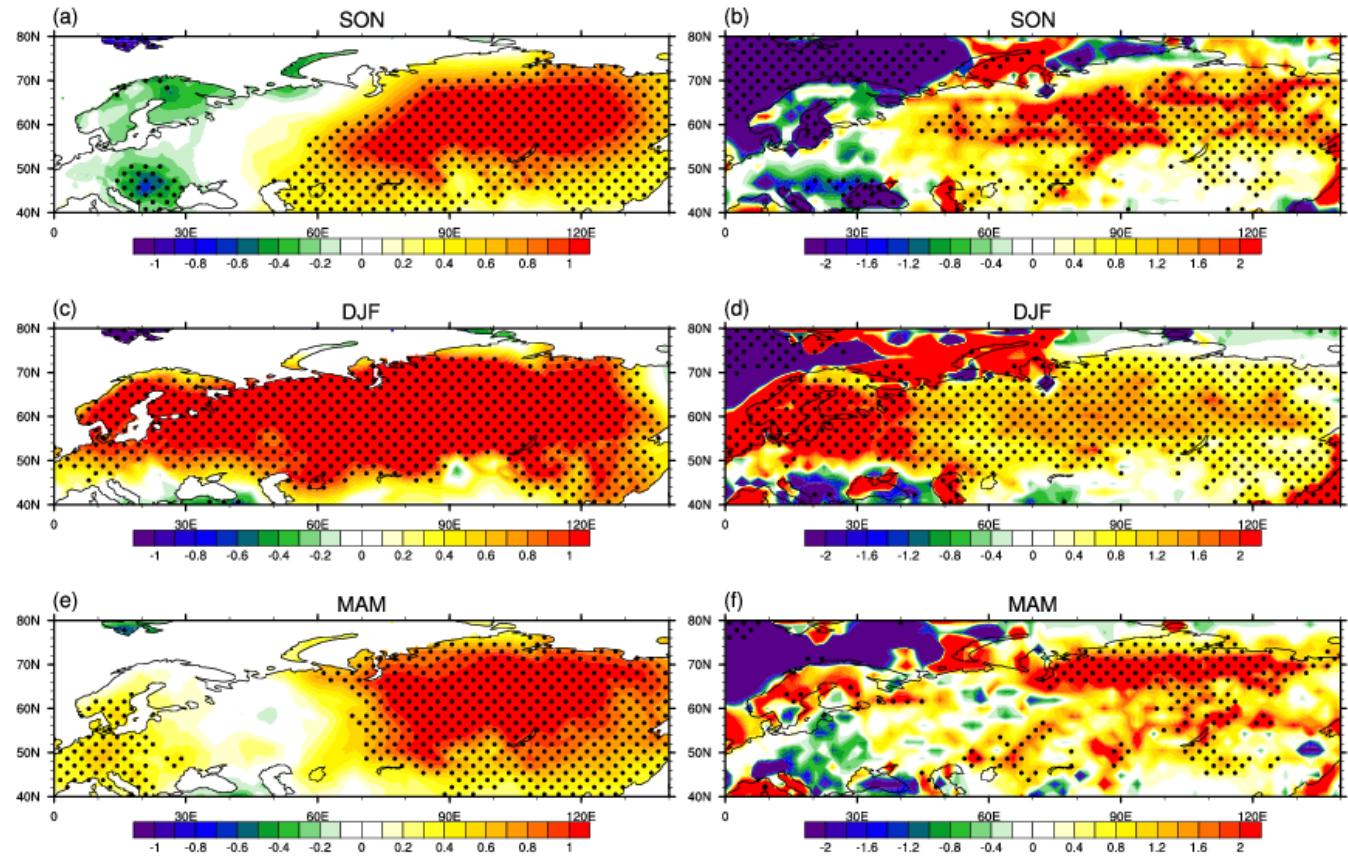


Figure S2. SAT anomalies (unit: $^{\circ}\text{C}$, left panel) and surface net heat flux (NHF) anomalies (unit: W m^{-2} , right panel) regressed on the time series of the Eurasian circulation dominant mode. Stippled anomalies are significant at the 95% confidence level of the Student's t-test.

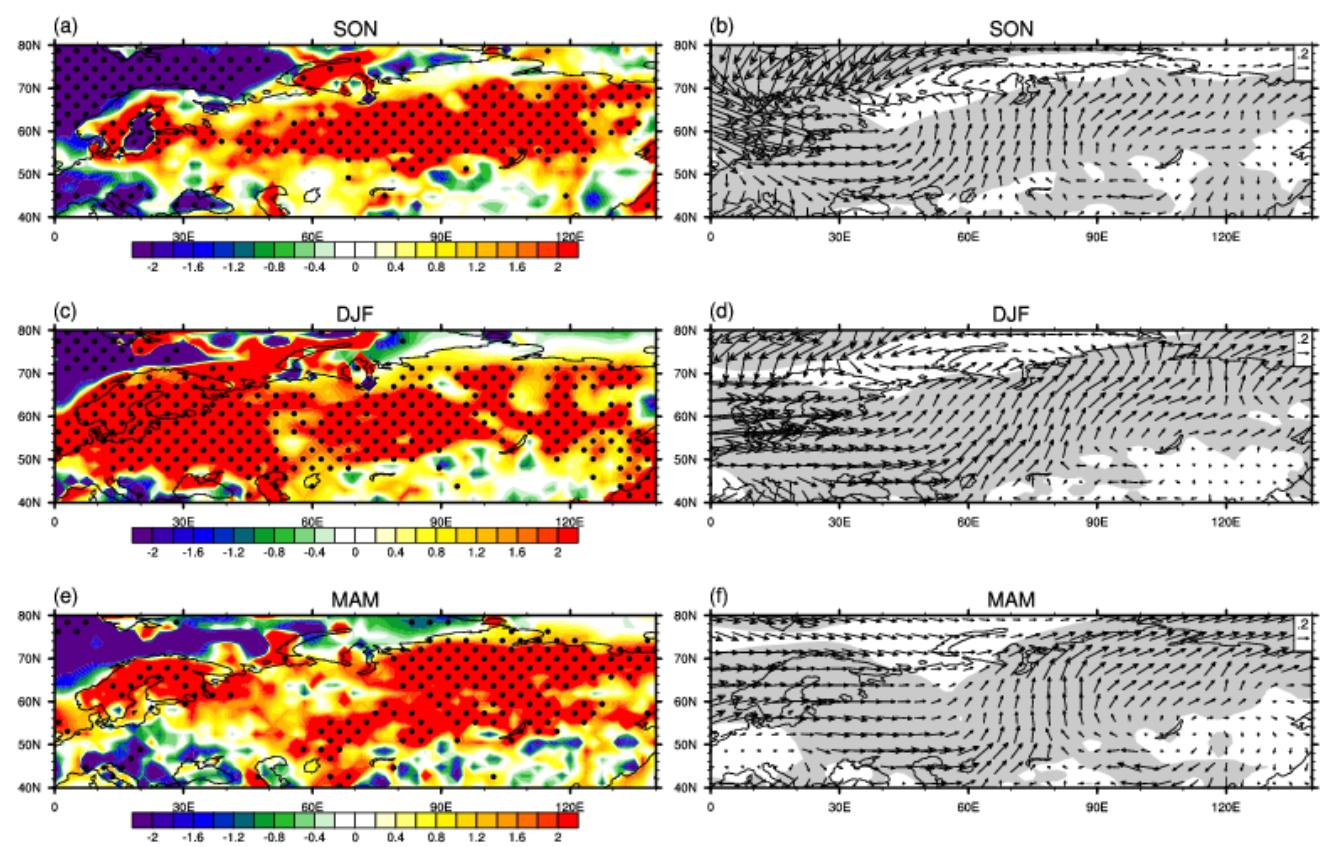


Figure S3. SHF anomalies (unit: W m^{-2} , left panel) and near-surface (10 m) wind anomalies (unit: m s^{-1} , right panel) regressed on the time series of the Eurasian circulation dominant mode. Wind anomalies in the gray shaded areas are significant at the 95% confidence level of the Student's t-test.

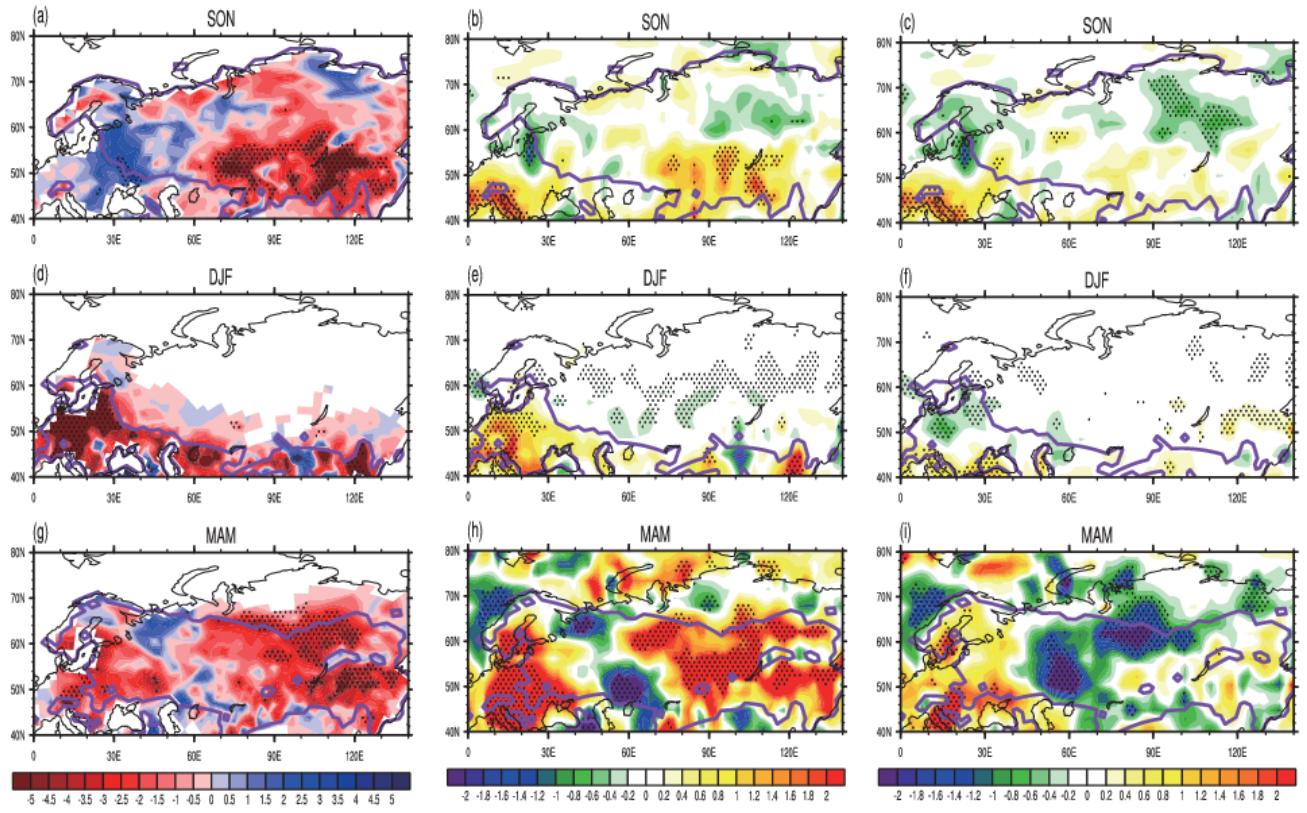


Figure S4. SCF anomalies (unit: %, left panel), SWR anomalies (unit: W m^{-2} , middle panel), and CFNSF anomalies (unit: W m^{-2} , right panel) regressed on the time series of the Eurasian circulation dominant mode. Purple contours denote the snow transient regions.