

Supporting Information for "Simulated response of the mid-Holocene Atlantic Meridional Overturning Circulation in ECHAM6-FESOM/MPIOM"

Xiaoxu Shi¹, Gerrit Lohmann^{1,2}

¹Alfred Wegener Institute, Helmholtz Center for Polar and Marine Research, Bussestr. 24, 27570 Bremerhaven, Germany

²University of Bremen, Bremen, Germany

Contents of this file

1. Figures S1 to S6

Introduction This supporting information provides the same figures as seen in the Supplementary figures in the main article.

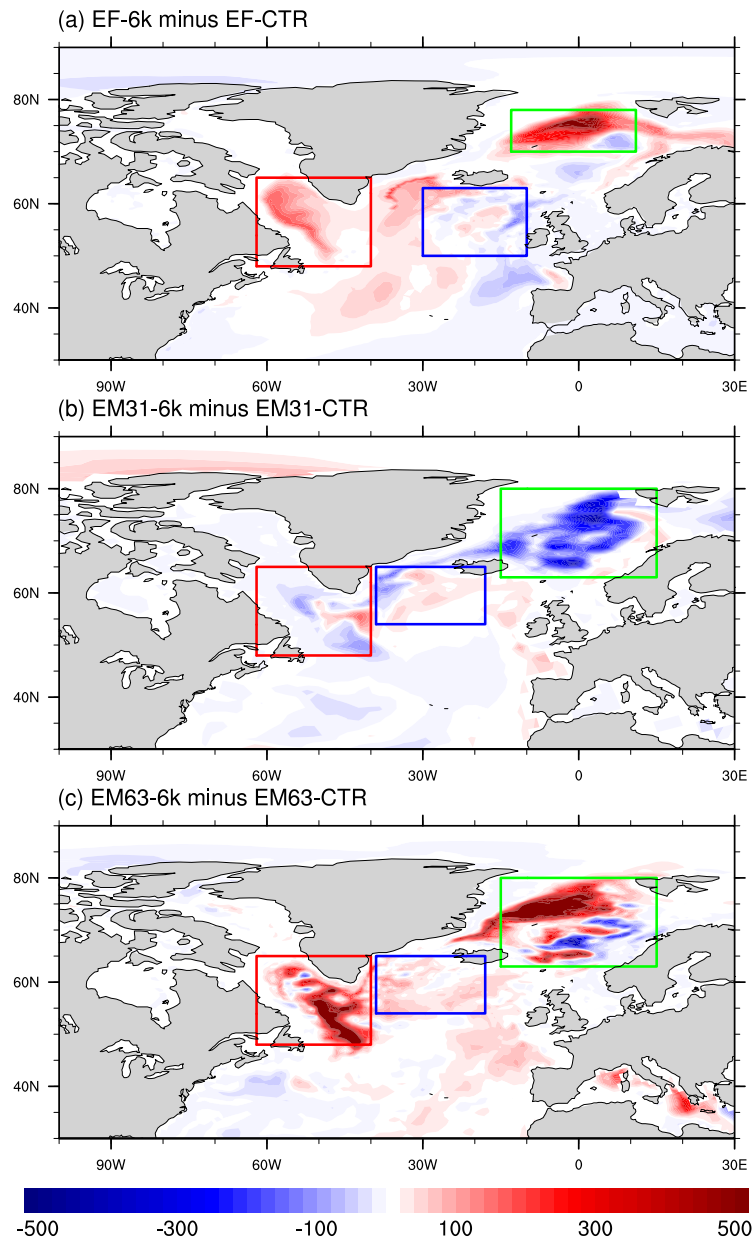


Figure S1. Same as Figure S1 in the paper. Simulated anomalies of mixed layer depth in (a) ECHAM6-FESOM, (b) ECHAM6-MPIOM (T31GR30), and (c) ECHAM6-MPIOM (T63GR15). Units are m.

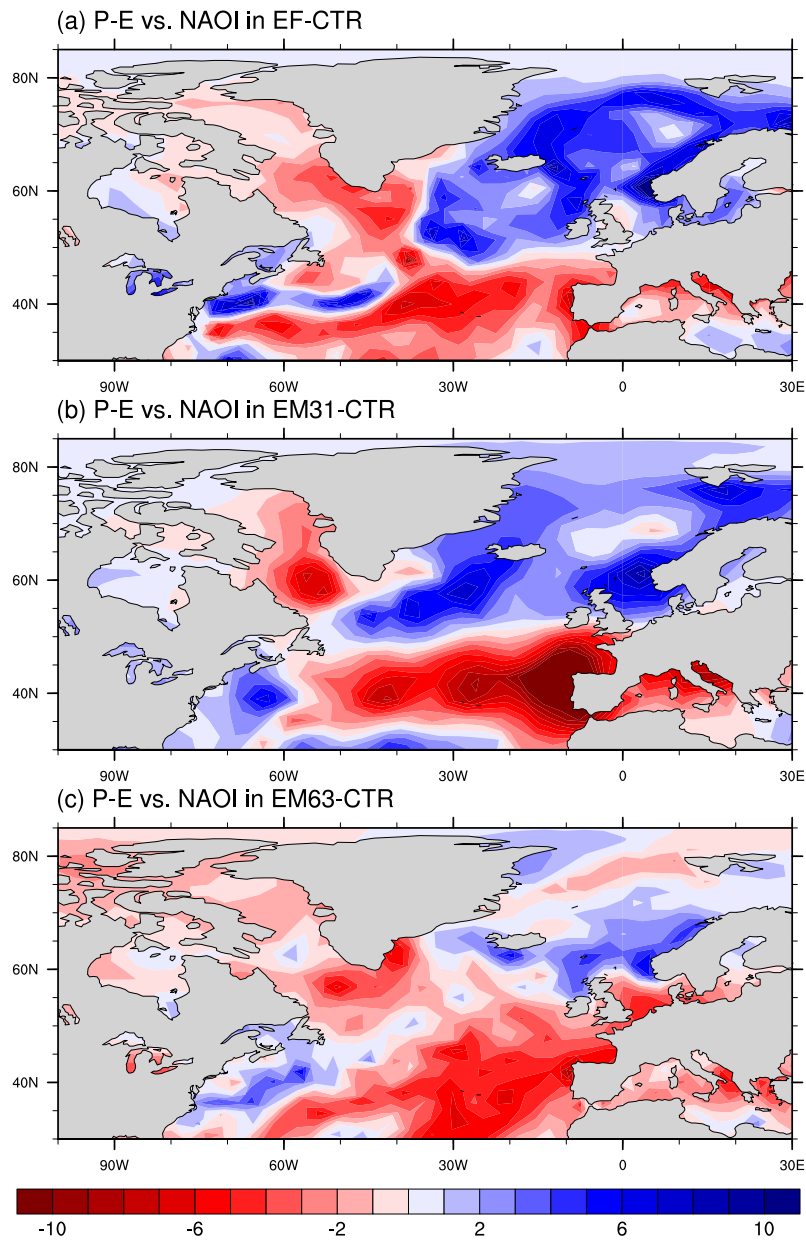


Figure S2. Same as Figure S2 in the paper. Averaged P-E anomalies (departure from the annual mean state) during years when the NAOI exceeds one standard deviation, for the three pre-industrial experiments. Units are mm/month.

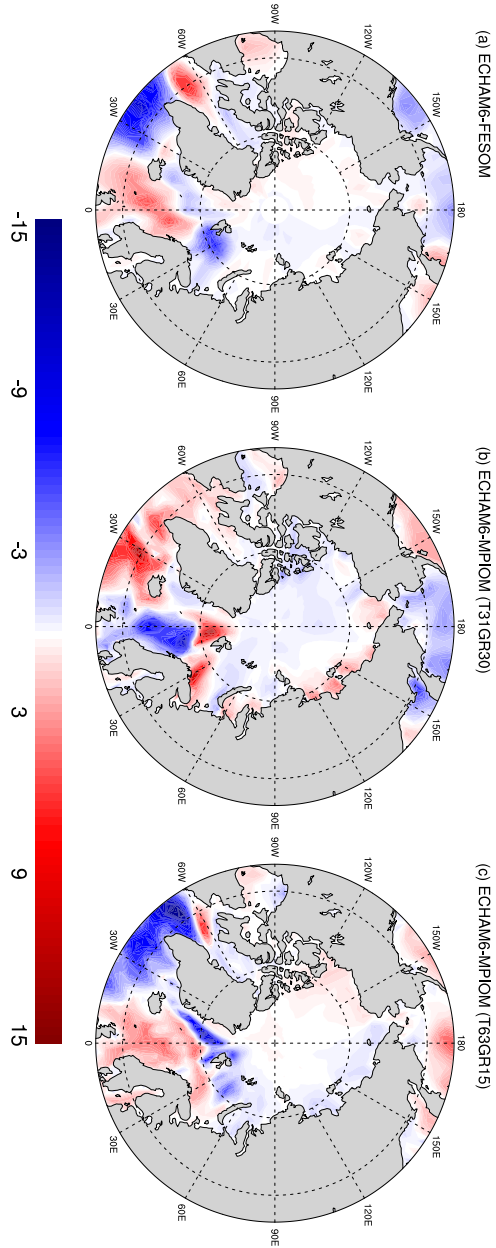


Figure S3. Same as Figure S3 in the paper. Averaged surface heat flux anomalies (departure from the annual mean state) during years when the NAOI exceeds one standard deviation, for the three pre-industrial experiments. Units are W/m^2 .

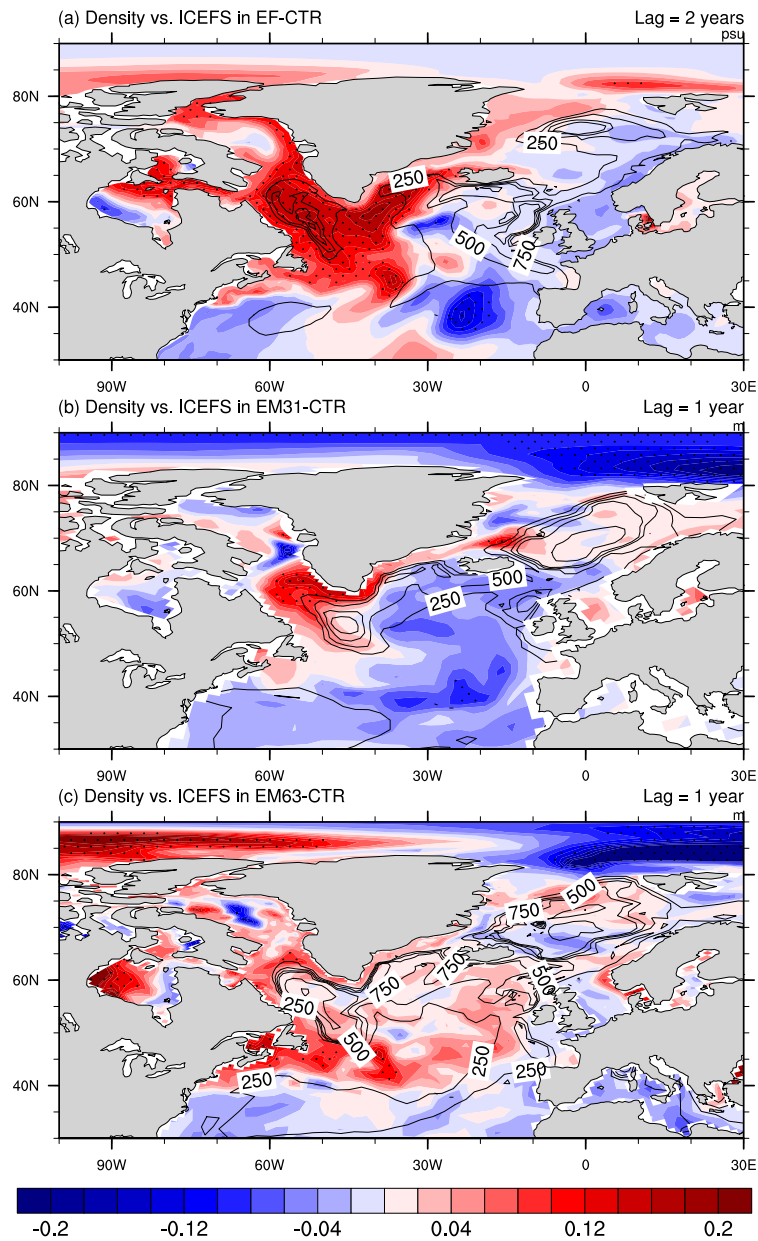


Figure S4. Same as Figure S4 in the paper. Averaged sea surface density anomalies (departure from the annual mean state) during years when ICEFS is below one standard deviation, with a lag of 1-2 years (ICEFS leads), based on the three pre-industrial experiments. Units are kg/m^3 . Contour lines present the pre-industrial mixed layer depth in March. Regions with $>95\%$ significance level (based on Student's T test) are hatched by black dots.

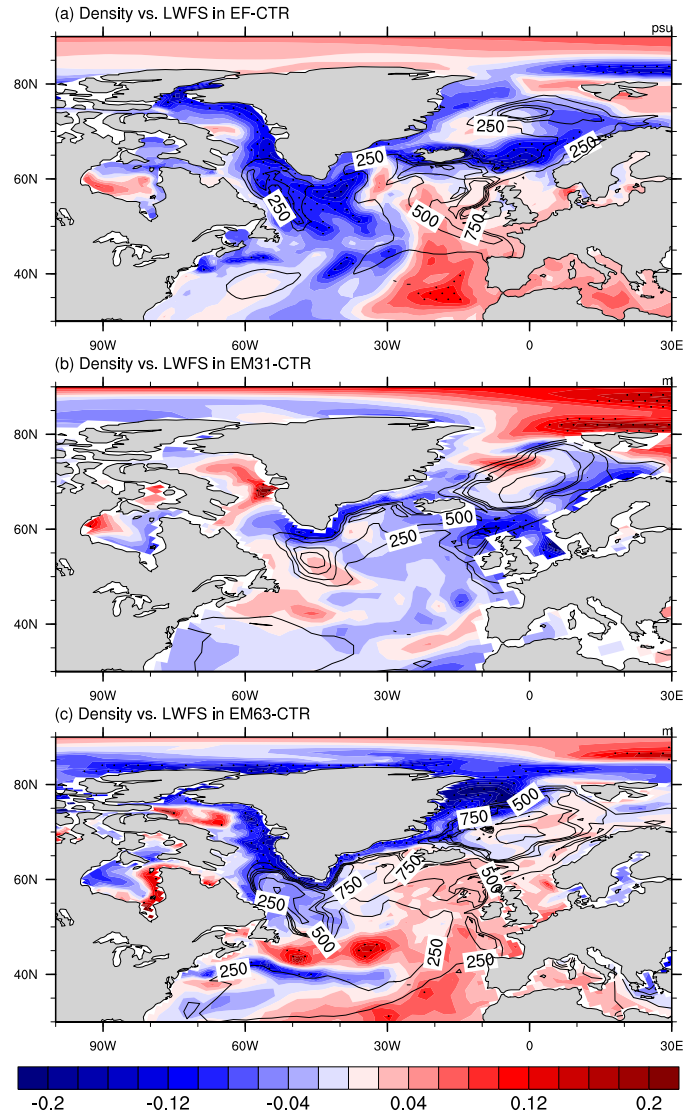


Figure S5. Same as Figure S5 in the paper. Averaged sea surface density anomalies (departure from the annual mean state) during years when LWFS is above one standard deviation, based on the three pre-industrial experiments. Units are kg/m^3 . Contour lines present the pre-industrial mixed layer depth in March. Regions with $>95\%$ significance level (based on Student's T test) are hatched by black dots.

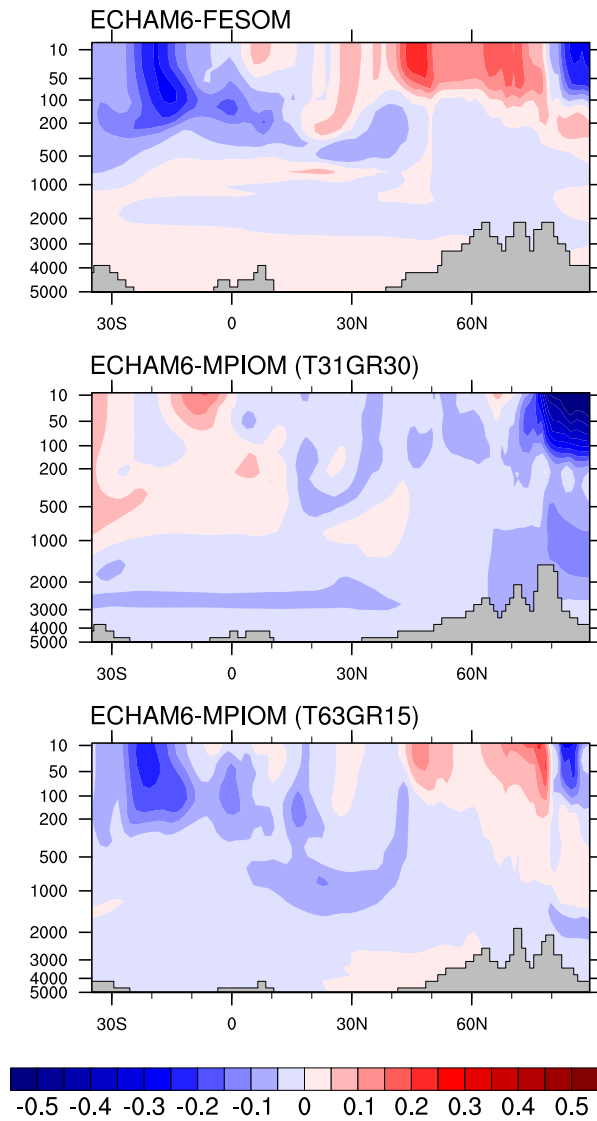


Figure S6. Same as Figure S6 in the paper. Simulated annual mean ocean salinity anomalies for the Atlantic region in the three models. Units are psu.