



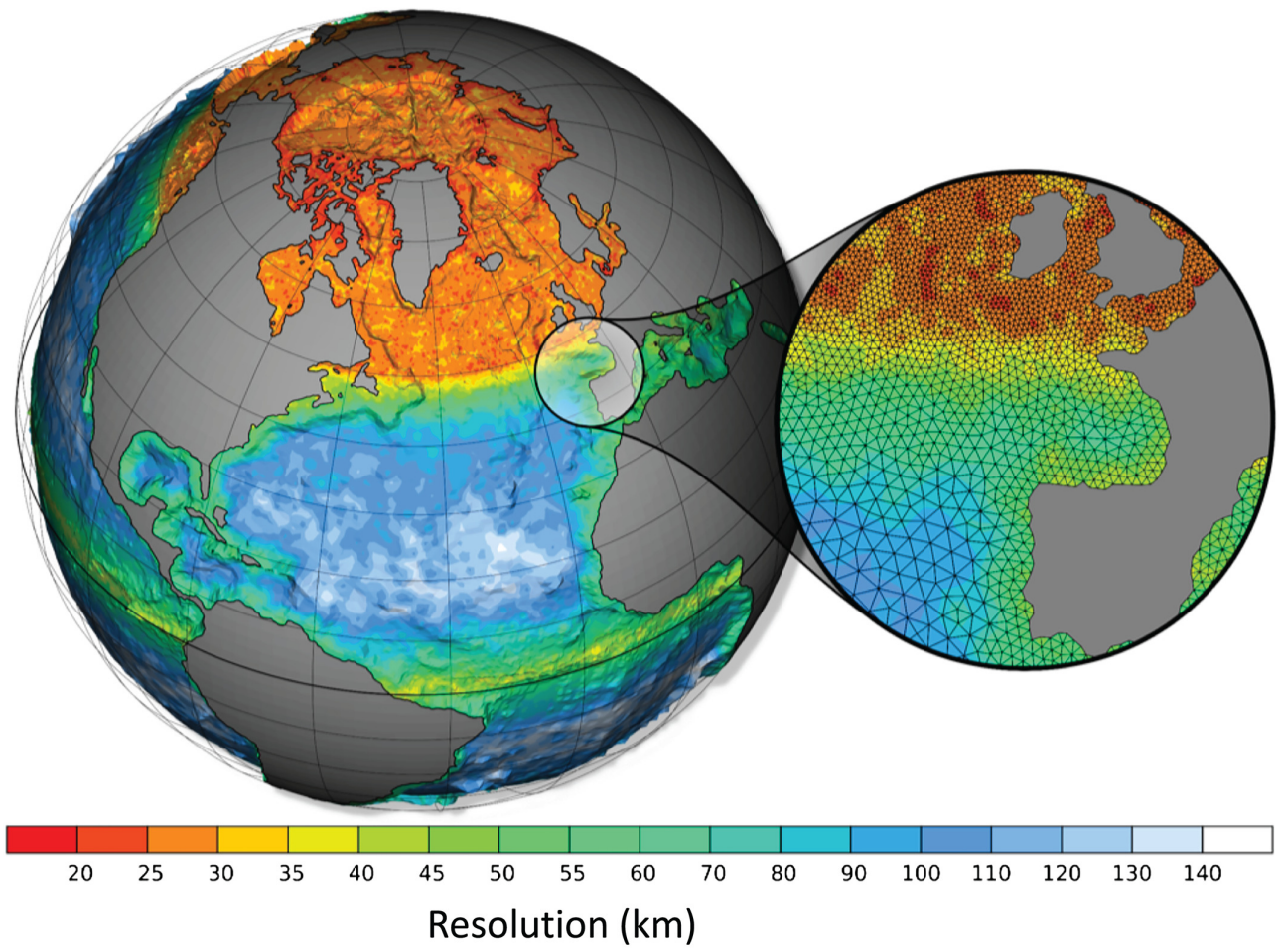
*Supplement of*

## **Unraveling the complexities of the Last Glacial Maximum climate: the role of individual boundary conditions and forcings**

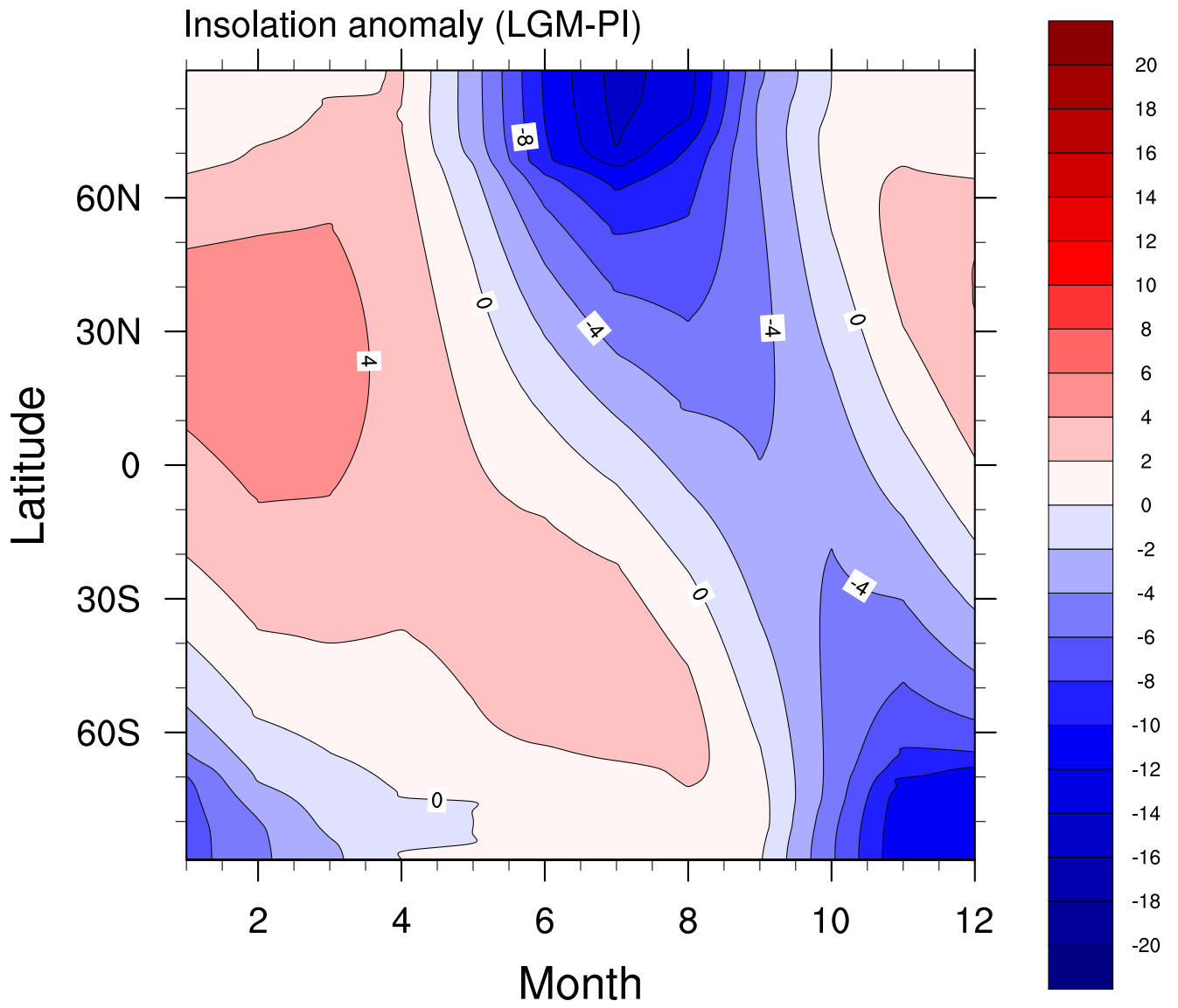
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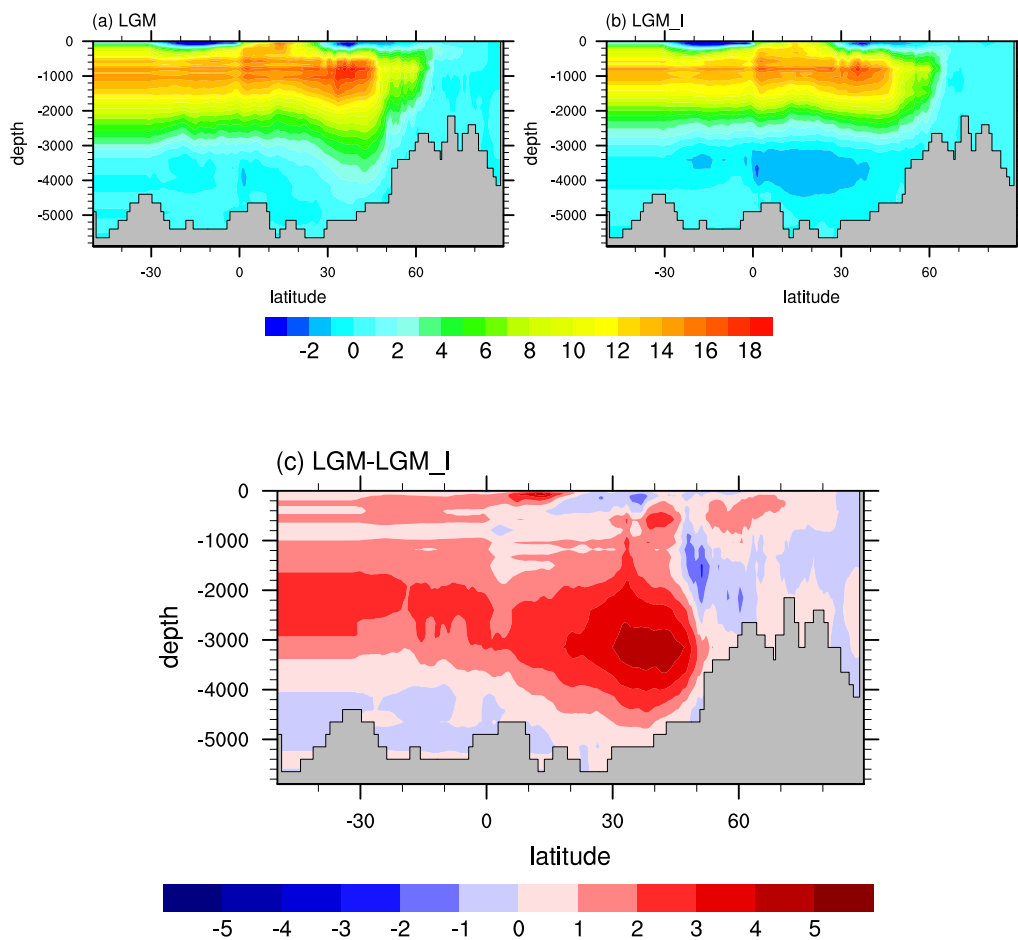
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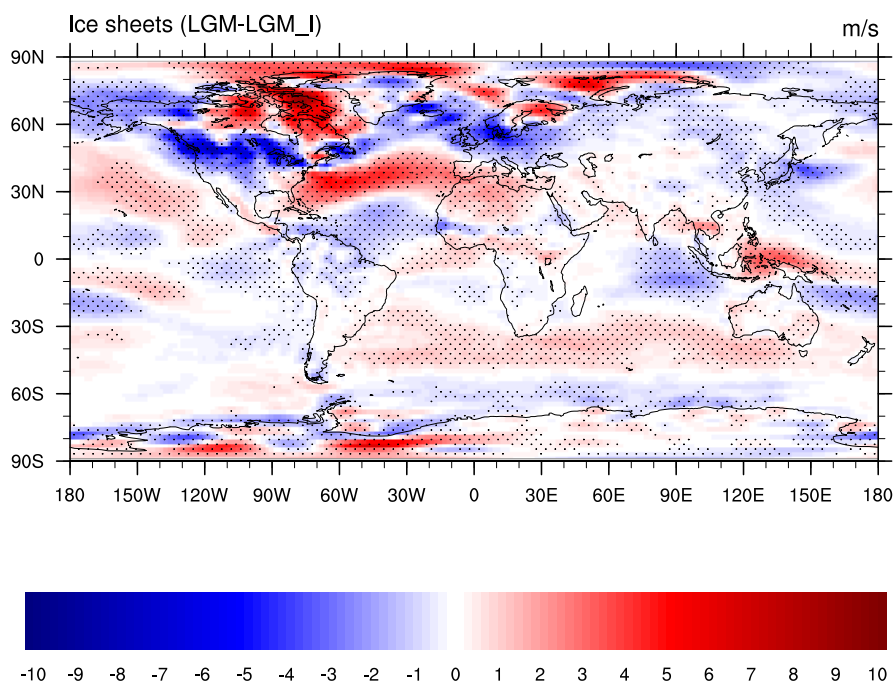
**Figure S1.** Spatial resolution of the ocean model FESOM. Units are km.



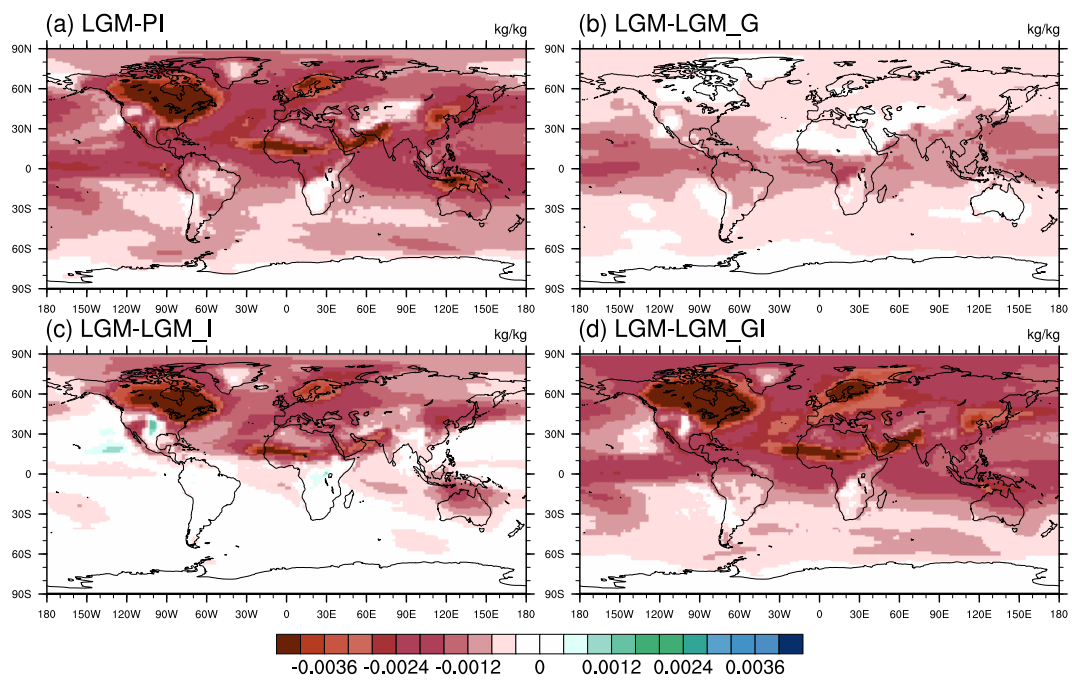
**Figure S2.** Top-of-atmosphere insolation anomalies between LGM and PI. Units are  $W/m^2$



**Figure S3.** Patterns of AMOC in LGM (a) and LGM\_I (b), and their differences (c). Units are Sv.



**Figure S4.** Anomalies in DJF-mean 1,000 hPa zonal winds between LGM and LGM\_I. The marked area has a significance level of greater than 95% based on Student's t-test. Units are m/s.



**Figure S5.** Anomalies in 925 hPa specific humidity for (a) LGM-PI, (b) LGM-LGM\_G, (c) LGM-LGM\_I, and (d) LGM-LGM\_GI. Units are kg/kg.