## Oceanic response to changes in WAIS and Astronomical Forcing during the MIS31 superinterglacial



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## Figure 1.

a) MIS31 WAIS topography (meter)

b) Differences of solar incoming radiation at the top of the atmosphere

between the CTR and the MIS31 simulation (W/m2)

c) Differences of surface temperature (K)

and sea ice (%) between the MIS31 and the AST simulation.

Continuous lines indicate warmer conditions and tones of blue are related to reduced sea-ice in MIS31 with respect to AST simulation.

a) and c) panels have been created with Ferret version 6.82 (http://ferret.pmel.noaa.gov/Ferret/). Panel b) is generated by GrADS version 2.0.2 (http://www.iges.org/grads/). a), b) and c) Panels are merged with Xfig version 3.2.5c (xfig.org).

	Control	MIS31	AST	ТОРО
eccentricity	0.0167	0.0559	0.0559	0.0167
Obliquity	23.438	23.898	23.898	23.438
Precession	102.94	289.79	289.79	102.94
WAIS	Present day	1.072Ka	Present day	1.072Ka
topography				

Table 1. Boundary conditions (BC) used in the sensitive experiments.

Figure 2. Vertically integrated oceanic heat transport for individual grid cells (OHT, 0.1 PW) showing the zonal contribution a), b) same as (a) but for differences between the MIS31 and the CTR. c) and d) show the zonal mean of the zonal and meridional contributions to the OHT. All panels have been created with Ferret version 6.82 (http://ferret.pmel.noaa.gov/Ferret/).

