

Supplement of The Cryosphere Discuss., 8, 5539–5588, 2014  
<http://www.the-cryosphere-discuss.net/8/5539/2014/>  
doi:10.5194/tcd-8-5539-2014-supplement  
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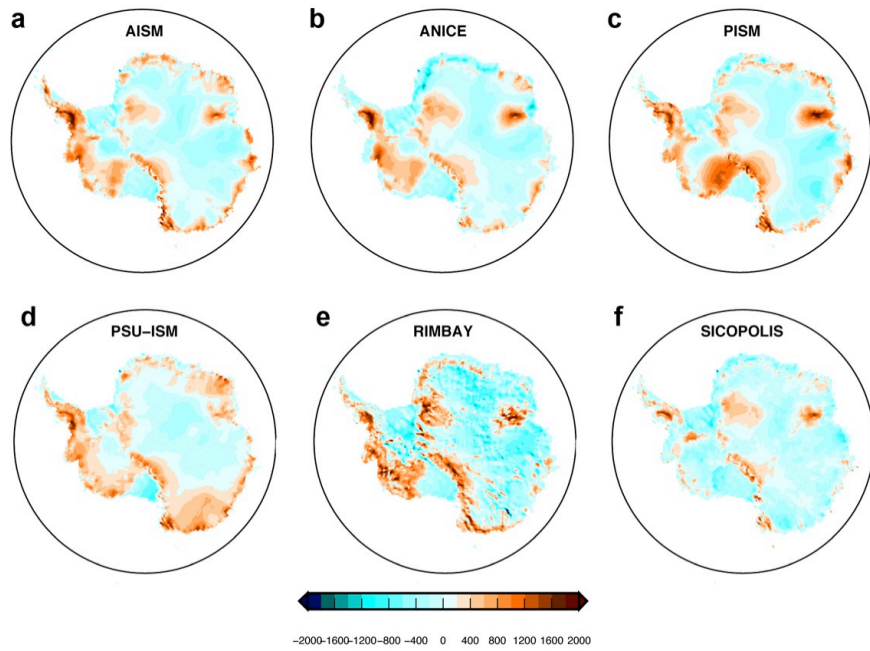


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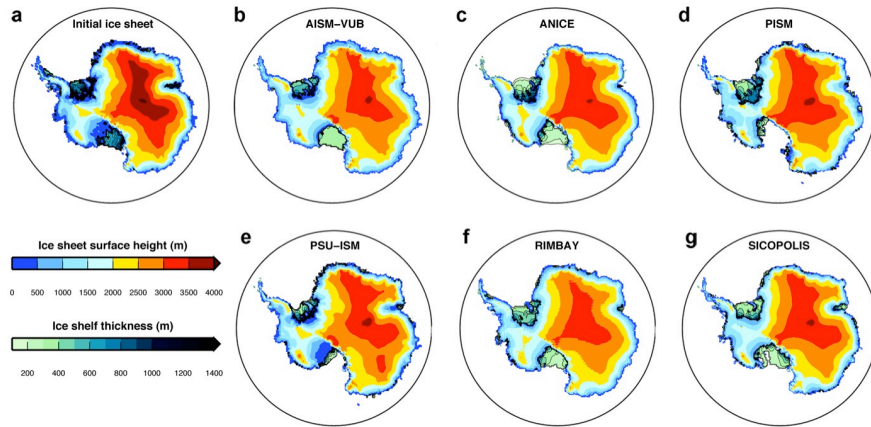
## **Simulating the Antarctic ice sheet in the Late-Pliocene warm period: PLISMIP-ANT, an ice-sheet model intercomparison project**

**B. de Boer et al.**

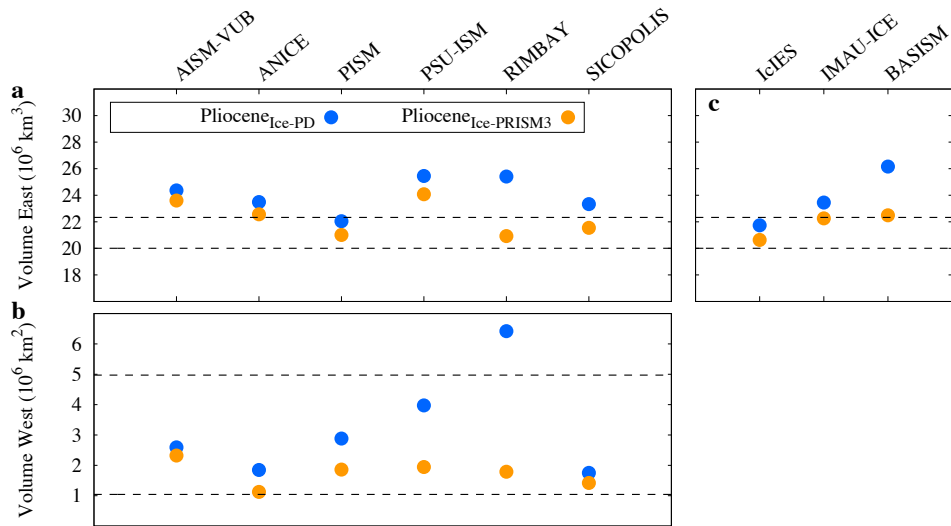
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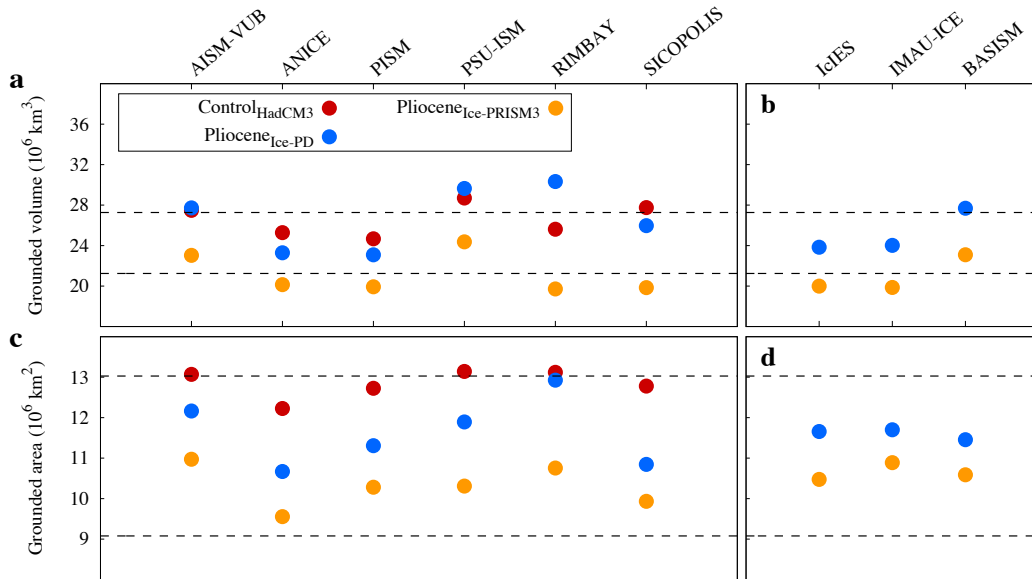
**Fig. S1:** Differences of ice thickness at the end of the simulation for the Control<sub>HadCM3</sub> experiment with the initial present day Bedmap1 ice thickness. a) AISM, b) ANICE, c) PISM. d) PSU-ISM, e) RIMBAY and f) SICOPOLIS.



**Fig. S2:** Ice surface topography and ice thickness of the ice shelves for the Control<sub>Obs</sub> experiment with ERA-40/WOD-2009 climate forcing. a) Initial ice sheet, b) AISM, c) ANICE, d) PSIM, e) PSU-ISM, f) RIMBAY, g) SICOPOLIS.



**Fig. S3:** Final grounded ice volume ( $10^6 \text{ km}^3$ ) for the Pliocene simulations. Pliocene<sub>Ice-PD</sub> in blue, Pliocene<sub>Ice-PRISM3</sub> in orange. The horizontal dashed lines indicate the PD and Pliocene ice volume and area for the initial ice-sheet topographies. a) East Antarctica for all six models, b) West Antarctica for all six models c) East Antarctica for the three SIA models. East and West Antarctica are divided by the meridians at  $30^\circ \text{W}$  and  $160^\circ \text{E}$ .



**Fig. S4:** Final ice volume and area of ice on land for the simulations with Bedmap2. Control<sub>HadCM3</sub> in red, Pliocene<sub>Ice-PD</sub> in blue, Pliocene<sub>Ice-PRISM3</sub> in orange. The horizontal dashed lines indicate the PD and Pliocene ice volume and area for the initial ice-sheet topographies. a) Land volume for the SIA-SSA ISMs (10<sup>6</sup> km<sup>3</sup>), b) land volume for the 3 SIA ISMs, c) land area for the SIA-SSA ISMs (10<sup>6</sup> km<sup>2</sup>) and d) for the SIA ISMs.