



An Antarctic temperature stack, 0-800 kyr BP

F. Parrenin (1) and V. Masson-Delmotte (1)

(1) Laboratoire de Glaciologie et Géophysique de l'Environnement, CNRS/UJF, Grenoble, France., (2) Laboratoire des Sciences du Climat et de l'Environnement, CNRS/UVSQ/CEA, Gif-sur-Yvette, France.

In this study we produce a stack (Antarctic Temperature Stack 2011, ATS-2011) of Antarctic temperature variations during the past 800 kyr, based on available ice core data at EPICA Dome C (EDC), Dome Fuji (DF), Vostok, Talos Dome, EPICA Dronning Maud land (EMDL), Byrd and Law Dome (LD). A preliminary work is the synchronisation of all these ice cores to the EDC one, based on volcanic matching, where available, and isotopic matching elsewhere. The isotopic records at each site are converted to temperature record using the classical isotopic thermometer, with correction for isotopic variations in the ocean. The stack is then simply constructed, for each time in the past, as the average of all available ice core temperature records.