



## **Evidence of Little Ice Age cooling in West Antarctica from borehole temperature.**

A. Orsi and J. Severinghaus

SIO, UC San Diego, La Jolla, CA, USA (aorsi@ucsd.edu)

We measured the temperature in a 300 m dry hole at the West Antarctica Ice Sheet Divide site, adjacent to the deep ice core hole (79° 28'S and 112° 07'W). WAIS Divide mean annual temperature of -31°C and accumulation rate of 22 cm-ice/year make it an ideal polar opposite to the Greenland Summit site. The record shows a clear cooling signal with a minimum at about 153 m, very similar in amplitude to the GISP2 record. Preliminary inversion results suggest an amplitude of 1°C for the Little Ice Age cooling, similar to that of Greenland Summit. This result differs from an unpublished Taylor Dome borehole record discussed by Broecker (PNAS, 2000). This inter-hemispheric synchronicity does not provide support for a bipolar see-saw mechanism but is consistent with a solar forcing cause for the Little Ice Age.