Geophysical Research Abstracts,
Vol. 10, EGU2008-A-05738, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-05738
EGU General Assembly 2008

Natural modulation of ENSO in the GFDL CM2.1 coupled GCM

A. Wittenberg
NOAA/GFDL, Princeton, New Jersey, USA

To detect secular changes in ENSO, one must first appreciate its full range of natural variation. We present results from a 2000-year control simulation of a state-of-the-art global coupled GCM, with its atmospheric composition, solar irradiance, and land cover held fixed at pre-industrial (1860) values. The control simulation exhibits strong interdecadal and intercentennial modulation of its ENSO behavior, which puts surprisingly large error bars on ENSO metrics diagnosed from centennial and shorter records. Implications for model evaluation, climate projections, historical and paleo records will be discussed.