SYLLABUS SIO 209, Spring 2014
Mechanisms of abrupt climate change in the paleo record – Graduate seminar

We will investigate in detail proposed mechanisms for Heinrich events, Dansgaard-Oeschger events, and other prominent abrupt features in the paleoclimate record from ice core, speleothems, and marine and lacustrine high-resolution sediment cores. Emphasis on scientific writing skills and verbal presentation skills. 2 units, S/U grading.

Fri. 2:00-3:20 pm, Vaughan Hall 348
Instructor: Jeff Severinghaus
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Prerequisites: SIO 210 or consent of instructor
Units: 2. Grade: S/U Two scientific writing exercises will be evaluated.

Date Reading and discussion

Fri. Apr 4 Course overview
Fri. Apr 11 “Heinrich event 1: an example of dynamical ice-sheet reaction to oceanic changes”, Alvarez-Solas et al., Clim. Past 7, 1297-1306 (2011)
Fri. May 2 “Muted change in AMOC over some glacial-aged Heinrich events” Lynch-Stieglitz et al., Nature Geoscience 7, 144-150 (2014).
Fri. May 16 “Millennial-scale precipitation changes in southern Brazil over the past 90,000 years”, Wang et al., Geophys. Res. Lett. 34, L23701 (2007).