

## Peter Huybers

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### EDUCATION

Ph.D., Climate Physics and Chemistry, MIT, September 2004.

Thesis: *On the Origins of the Ice Ages: Insolation Forcing, Age Models, and Nonlinear Climate Change*. Adviser: Carl Wunsch.

B.S., Physics, United States Military Academy, West Point, NY, 1996.

### PROFESSIONAL EXPERIENCE

*Assistant Professor* Department of Earth and Planetary Sciences, Harvard, 2007-

*Research Associate and Environmental Fellow* Department of Earth and Planetary Sciences, Harvard, 2006.

*NOAA Postdoctoral Fellow in Climate and Global Change.* Geology and Geophysics Department, Woods Hole Oceanographic Institution, 2004-2006.

*Research Assistant.* Department of Earth, Atmospheric, and Planetary Sciences, MIT, 1999-2004.

*Tank Platoon leader.* US Army, Germany and Bosnia, 1997-1998.

### SERVICE

*Co-chair of AGU sessions.* Proposed and organized sessions on “Beyond the Instrumental Record of Ocean Circulation”, 2006; and “Stratigraphic chronologies: determination, interpretation, and quality control.”, San Francisco, CA, 2002.

*Member of Cambridge Climate Advisory Committee.* Helped formulate city’s climate policy, Cambridge, MA, 2003-2005.

*Seminar coordinator.* Organized weekly seminars for the Oceanography and Climate Sack Lunch Seminar, MIT, 2002-2004.

*Staff Meteorologist.* Wrote a monthly column for the MIT newspaper, *The Tech*, forecasting and explaining the weather, 1999-2000.

### TEACHING

*Instructor.* Seminar course on abrupt climate change, MIT, 2005.

*Guest-Lecturer.* Occasional lectures on statistics and paleoclimate, MIT and WHOI, 2003-2006.

*High school teacher.* Regular and advanced placement physics, New Orleans, LA, 1998-1999.

### **AWARDS AND HONORS**

Harvard University Center for the Environment Fellowship, 2006

NOAA Postdoctoral Fellowship in Climate and Global Change, 2004-2006

Carl-Gustaf Rossby Prize. Awarded for the best PhD thesis in the Program in Atmospheres, Oceans, and Climate completed during 2004.

National Defense Science and Engineering Graduate Fellowship, 2001-2004

### **PUBLICATIONS**

P. Huybers and C. Wunsch, "Rectification and precession-period signals in the climate system", *Geophysical Research Letters*, v30(19), 2003.

P. Huybers and C. Wunsch, "A depth-derived Pleistocene age-model: uncertainty estimates, sedimentation variability, and nonlinear climate change", *Paleoceanography*, v19, 2004.

P. Huybers, "Comments on: 'Coupling of the hemispheres in observations and simulations of glacial climate change': by A. Schmittner, O.A. Saenko, and A.J. Weaver [Quaternary Science Reviews 22 (2003) 659-671]", *Quaternary Science Reviews*, v23, p207-210, 2004.

P. Huybers and C. Wunsch, "Obliquity pacing of the late Pleistocene glacial terminations", *Nature*, v434, p491-494, 2005.

P. Huybers, "Comment on: 'Hockey sticks, principal components, and spurious significance' by McIntyre and McKittrick", *Geophysical Research Letters*, v32, 2005.

P. Huybers and W. Curry, "Links between the annual, Milankovitch, and continuum of temperature variability", *Nature*, v441, p329-332, 2006.

P. Huybers, "Pleistocene glacial variability and the integrated insolation forcing", *Science*, v313, p508-511, 2006.

E. Tziperman, M. Raymo, P. Huybers, and C. Wunsch "Consequences of pacing the Pleistocene 100 kyr ice ages by nonlinear phase locking to Milankovitch forcing", *Paleoceanography*, v21(4), PA4206, 2006.

G. Gebbie and P. Huybers, "Meridional circulation during the Last Glacial Maximum explored through a combination of South Atlantic  $\delta^{18}O$  observations and a geostrophic inverse model", *Geochemistry, Geophysics and Geosystems*, v7, Q11N07, 2006.

P. Huybers, "Glacial variability over the last 2Ma: an extended depth-derived age model, continuous obliquity pacing, and the Pleistocene progression", *Quaternary Science Reviews*, v26, p37-55, 2007.

P. Huybers, G. Gebbie, and O. Marchal, "Can paleoceanographic tracers constrain meridional circulation rates?", *Journal of Physical Oceanography*, in press.

## MANUSCRIPTS

- P. Huybers and E. Tziperman “Integrated summer insolation forcing and 40,000 year glacial cycles: the perspective from an icesheet/energy-balance model”, draft.
- P. Huybers, “On the frequency dependence of paleo-reconstructions of hemispheric surface temperature”, draft.
- P. Huybers, K. Hughen, and the PARCS Working Group, “Identification and reconstruction of Arctic modes of variability over the last 600 years”, draft.
- P. Huybers, “A quantitative test for the spatial extent of the Younger-Dryas”, invited and in prep.
- P. Huybers, “Determining Greenland and Antarctic climate phasing in the face of age-model uncertainty”, in prep.

## RECENT PROFESSIONAL ACTIVITIES

*Invited speaker*, “Glacial variability over the last two-million years”, Harvard, Princeton, Mass. Inst. Tech., Brown U., U. Cal. Berkeley, U. Maine, New York U., U. Cal. Santa Barbara, 2006. “Can paleoceanographic tracers constrain meridional circulation rates?”, SCOR/IMAGES Workshop at Georgia Tech, 2005; Mass. Inst. Tech., 2006. “Determining inter-polar coherence in the face of age-model uncertainty”, European Geophysical Union, April 2006. “Spatial scales of climate variability from months to millions of years”, Scripps Institution of Oceanography, U. Washington, 2005. “Deconstructing the Hockeystick”, Woods Hole Oceanographic Institution, Mass. Inst. Tech., Boston U., 2005. “Obliquity Pacing of the 40 and 100 kyr Modes of Glacial Variability”, American Geophysical Union, 2004; U. Washington, 2004; Lamont Doherty Earth Observatory, 2005; Princeton, 2005.

*Member of International Ocean Drilling Program Planning Group*, developing an ocean sampling strategy to better determine the origins of the glacial cycles, 2006-.

*Participant*, National Academy of Sciences Frontiers of Science Symposium, Irvine, CA, 2005.

*Reviewer* for the National Research Council and the journals Nature, Paleoceanography, Journal of Physical Oceanography, Quaternary Research, Earth and Planetary Science Letters, Journal of Geophysical Research, Climate Dynamics and others.

## PROFESSIONAL AFFILIATIONS

American Geophysical Union, European Geophysical Union.

January, 2007