

## Peter Huybers

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### PROFESSIONAL PREPARATION

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

Massachusetts Institute of Technology, Climate Physics and Chemistry, Ph.D., 2004.

Woods Hole Oceanographic Institution, Paleoclimate, 2004-2006.

### APPOINTMENTS

*Assistant Professor of Climate*, Department of Earth and Planetary Sciences, Harvard University (2007-)

*Harvard University Environmental Fellow*, Department of Earth and Planetary Sciences, Harvard University (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; Massachusetts Institute of Technology (1999-2004).

*High school physics teacher*, Isidore Newman High School, (1998-1999).

*Armor Officer*, US Army, active duty and national guard (1996-2003).

### AWARDS AND HONORS

MacArthur Fellow (2009), Packard Fellowship for Science and Engineering (2009), AGU James B. Macelwane Medal (2009), Harvard University Center for the Environment Fellowship (2006), NOAA Postdoctoral Fellowship in Climate and Global Change (2004), MIT Carl-Gustaf Rossby Prize (2004); National Defense Science and Engineering Graduate Fellowship (2001).

### SYNERGISTIC ACTIVITIES

*Member*: Harvard University Center for the Environment (2005-); Harvard Oceanography Committee (2007-); Energy, Climate, and Global Change Faculty Working Group (2007-); Changelings (2007), Cambridge Climate Advisory Committee, 2003-2005.

*Meetings Organizer*: Co-chair of AGU sessions on “Stratigraphic chronologies: determination, interpretation, and quality control.” in 2002, and on “Extending the instrumental record of ocean circulation.” in 2006, Co-chair of Leverhulme Climate Meeting “Using the paleoclimate record to inform us regarding future climate change.”, London, UK, 2008.

*Invited lecturer (last year)*: program on Mexico’s energy future at the Kennedy school of government (June 24), workshop on sea level at the U. of Bern (Aug. 28), Gary Comer meeting at Lamont

Doherty Earth Observatory (Sep. 15), center for global change lecturer series at the U. of Toronto (Sep. 30), geochemistry seminar at Lamont Doherty Earth Observatory (Nov. 12), joint program in applied mathematics and earth sciences colloquium at Columbia University (Nov. 13), climate sensitivity winter school at Hebrew U. (Jan. 14), climate effects on human evolution and human impacts on climate change series at MIT (Jan. 26), Jackson School of Geoscience seminar at the U. of Texas (Feb. 6), geodynamics seminar series at the Woods Hole Oceanographic Inst. (Apr. 2), Harvard ice workshop (Apr. 4), sack lunch seminar at MIT (Apr. 8), climate change and the fall of the Roman empire workshop at Dumbarton Oaks in Washington D.C. (Apr. 24), seminar at UT Austin (Apr. 27), fundamental problems in climate dynamics workshop at Princeton (May. 5), past climate symposium in Wellington New Zealand (May. 15).

### **TEACHING AND ADVISING**

*Graduate courses:* Great Papers in Earth Science (2009), Tides and Milankovitch (2010).

*Undergraduate courses:* Freshman Seminar on Climate Change (2008), History of the Earth (2008–2010), Climate change debates (2009, 2010).

*Thesis Adviser and Postgraduate Sponsor:* Thesis advisor: Nathan Arnold, Ethan Butler, Cristian Proistosescu, Eddie Haam, and Andrew Rhines. Postgraduate sponsor: Geoffrey Gebbie. Undergraduate thesis adviser: Alexandre Giese and Karen McKinnon. PhD graduates: Martin Tingley.

### **PUBLICATIONS**

P. Huybers and C. Wunsch, “Rectification and precession-period signals in the climate system”, *Geophysical Research Letters*, v30, 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 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, PA4206, 2006.

G. Gebbie and P. Huybers, “Meridional circulation during the Last Glacial Maximum explored through a combination of South Atlantic d18O 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*, v37, p394-407, 2007.

- P. Huybers and P. Molnar “Tropical cooling and the onset of North American glaciation”, *Climate of the Past*, v3, p549-557, 2007.
- P. Huybers and E. Tziperman “Integrated summer insolation forcing and 40,000 year glacial cycles: the perspective from an icesheet/energy-balance model”, *Paleoceanography*, v23, PA001463, 2008.
- M. Raymo and P. Huybers “Unlocking the mysteries of the ice ages”, *Nature*, v451, p284-285, 2008.
- P. Huybers and G. Denton “Antarctic temperature at orbital time scales controlled by local summer duration”, *Nature Geoscience*, published online, 21 Sep., 2008.
- A. Stine, P. Huybers and I. Fung “Changes in the phase of the annual cycle of surface temperature”, *Nature*, v457, p435-440, 2009.
- T. Perron and P. Huybers “Is there an orbital signal in the polar layered deposits on Mars?”, *Geology*, v37, p155-158, 2009.
- M. Siddall, B. Hönisch, C. Waelbroeck and P. Huybers “Changes in deep Pacific temperature during the mid-Pleistocene transition and Quaternary”, *Quat. Sci. Rev.*, doi:10.1016/j.quascirev.2009.05.011, 2009.
- T. Naish et. al. “Obliquity-paced Pliocene West Antarctic ice sheet oscillations”, *Nature*, v458, p322-328, 2009.
- P. Huybers “Antarctica’s Orbital Beat”, *Science*, v325, p1085-1086, 2009.
- P. Huybers and C. Langmuir “Feedback between deglaciation, volcanism, and atmospheric CO<sub>2</sub>”, *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2009.07.014, 2009.
- P. Huybers “Pleistocene glacial variability as a chaotic response to obliquity forcing”, *Climate of the Past*, v5, p481-488, 2009.
- E. Haam and P. Huybers “A test for the presence of covariance between time-uncertain series of data with application to the Dongge Cave speleothem and atmospheric radiocarbon records”, *Paleoceanography*, in press.
- P. Huybers and C. Wunsch “Paleo-physical oceanography with an emphasis on the Last Glacial Maximum”, *Annual Review of Marine Science*, in press.

October 21, 2009