University of Michigan
Tenure Track Faculty Positions in
Global Change: Cryosphere and Sea-Level Impacts

The University of Michigan's Departments of Geological Sciences (GS) and Atmospheric Oceanic and Space Sciences (AOSS) announce five tenure-track positions in the field of *Global Change: Cryosphere and Sea-Level Impacts*. Pending final approval, the objective of this cluster hire is to advance cross-disciplinary research in Global Change research as part of the University of Michigan's interdisciplinary junior faculty initiative. Candidates are sought in the fields of (1) Glaciology, (2) Climate and Ice Sheet Modeling, (3) Coastal Processes, (4) Physical Oceanography, and (5) Regional Climate Modeling. Candidates will be appointed at the assistant professor level with a university year appointment in either GS or AOSS, but will be expected to interact with the cluster cohorts in both departments, as well as existing faculty.

Successful candidates are expected to establish independent research programs and contribute to undergraduate and graduate teaching. A complete application will include a cover letter, curriculum vitae, statement of present and future research plans, statement of teaching experience and interests, and names of at least five persons who can provide letters of recommendation. The applicant should identify in the cover letter the position being applied for. Additional information about the departments can be found at: http://www.geo.lsa.umich.edu and http://aoss.engin.umich.edu. Applications should be sent to:

Global Change Search Committee (Re: Position 1, 2, 3, 4, or 5)
Department of Geological Sciences, University of Michigan
1100 N. University Avenue
Ann Arbor, MI 48109-1005

For full consideration applications should be received before November 1, 2008. Questions concerning these positions should be directed to glbch-search@umich.edu. *The University of Michigan is an equal opportunity/affirmative action employer. Women and minorities are encouraged to apply. The University is supportive of the needs of dual career couples.*

1. Glaciology.
The preferred candidate will make observations of ice-sheet physics and how ice-sheets respond to climate change. Areas of interest include empirical studies of glacial and sub-glacial hydrology, bed characteristics, ice-sheet dynamics and mass balance. We expect the successful candidate will employ observational techniques such as, but not limited to, remote sensing, high-precision gravity measurements, and/or innovative field techniques.

2. Climate and Ice Sheet Modeling.
The preferred candidate will develop and conduct numerical modeling of ice-sheets and advance their coupling with global and regional climate models. Emphasis will be placed on predicting recent, present, and future changes in polar ice volume and its implications for sea-level rise and freshwater discharges into the ocean.

3. Coastal Processes.
The preferred candidate will conduct model and/or field-based investigations of the impacts of sea-level rise on coastal regions. Areas of expertise could include: (1) the effects of sea-level inundation and storm surges on coastal circulation and urban areas, ecosystems, and freshwater availability; (2) integration of regional climate and ocean circulation to understand coastal processes and/or (3) studies of the variability and magnitude of past storm surges.

4. Physical Oceanography.
The preferred candidate will use field, observational and/or theoretical techniques to study physical oceanographic processes near the ice-ocean interface. Areas of interest include, but are not limited to, ocean circulation and convection, calving/ablation processes, dynamics of ice-sheet buttressing by marine ice shelves, and/or processes controlling sea ice.

5. Regional Climate Modeling.
The preferred candidate will employ and develop techniques for using regional climate models to study atmosphere-ocean, atmosphere-land, or ocean-land interfaces at finer resolution than is possible in global models. Preference will be given to candidates who have demonstrated innovative methods for downscaling climate predictions to understand processes of discernable human relevance in coastal areas.