



Welcomes **EOS Seminar Guest Speaker:**

Sidney Hemming, Associate Professor Department of Earth and Environmental Sciences, Columbia University

Time: Thursday, April 14, 2011 @ 3:30pm

Location: PSC Bldg., Room 006

Title: Antarctica's Geologic and Climatic History from Isotopic Sedimentary Provenance Studies of Marine Sediments

Understanding the evolution of Antarctic Ice Sheets is a fundamental goal in the field of paleoclimate today. Given the current and projected state of global warming, it is important to know how an ice sheet that holds over 50 m of sea -level has behaved under warmer conditions in the past. As approximately 98% of Antarctica is covered by ice, the composition of terrigenous sediments from till outcrops and marine sediment cores provide important information about Antarctica's subglacial geology. This information can be used for constraining the tectonic history of the crust hidden under the ice. It can also be used for tracing the regional dynamics of Antarctica's ice sheets by taking advantage of the pattern of geological variability. This presentation will review sedimentary provenance evidence for Antarctica's regional geology and erosion history as well as exciting new evidence for dynamic behavior of the East Antarctic Ice sheet in the late Cenozoic.