



# Colloquium

## **How Warm is Too Warm? Global Warming, Sea Level Rise, and the Future of the Polar Ice Sheets**

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Global warming due to greenhouse gas emissions is projected to cause a significant rise (~0.4m) in sea level during this century due to thermal expansion of ocean waters and melting of non-polar glaciers, leading to increasing coastal erosion and submergence, and attendant loss of wetlands, beaches, infrastructure, and agricultural land in low-lying deltas. But a much greater potential rise would accompany the loss of the Greenland or West Antarctic ice sheets, which contain an equivalent of ~7m and 5m sea level rise, respectively. Current ice-sheet models are unable to account for recent, rapid loss from parts of both ice sheets, and provide an inadequate basis for projecting the future. Paleoclimate studies suggest both ice sheets would be vulnerable to substantial deglaciation by a further, modest global warming.

**Wednesday, November 15, 2006**

**4:15 P.M. (Refreshments at 4:00 P.M.)**

**Lyman Spitzer Building, M. B. Gottlieb Auditorium**