Water Sustainability in a Warming World: A Paleo-Perspective

Speaker: Dr. Wallace S. Broecker
Professor of Geology, Columbia University

Abstract:
As the Earth is warmed by fossil--fuel CO$_2$, the allocation of water for agricultural use will become an ever larger issue. The changes in precipitation associated with the last cycle of glaciation and with the recent Little Ice Age have much to offer in this regard. The key archives of this information are the size histories of closed-basin lakes and the oxygen-isotope record in stalagmites. Not only do these records serve as targets for validating global climate models but also as direct indicators as to what might be in store for us as the planet warms. In addition to the planet-wide warming, the record offers insight into the impacts of the differential warming which the Northern Hemisphere will experience as the globe warms.

If nothing else, the record warns us that the changes in store for us will be quite large!

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