The Climate, Atmosphere and Ocean Seminar

Fredy and Nadine Herrmann Institute of Earth Sciences, Hebrew University of Jerusalem



Thursday Mar.2, at 12:00 room 102

Drastic hydrological shifts in Levant climate during the last interglacial indicated by ²³⁴U/²³⁸U in authigenic minerals from the Dead Sea

Dr. Yael Kiro, Lamont-Doherty Earth Observatory, Columbia University **Abstract**

The impact of climate change includes dry regions that will get drier and wet regions that will get wetter but looking into past climate in the Eastern Mediterranean shows that the driest periods during the last warm interglacial peak (130-115 ka) were characterized by increase in flooding events. During this critical time human dispersed out of Africa. This interval is reflected by thick sections of salt revealed by the Dead Sea Deep Drilling Project reflecting one of the driest periods in this region as a result of reduction by ~50% of water resources. During that time, as indicated by ²³⁴U/²³⁸U in water sources, the hydroclimate shifted dramatically causing more rainfall in arid regions, more flash floods and redistribution of rainfall towards the fall season over thousands of years. This has direct effect on water availability and has both implications for understanding past human migration and future water resources in the sensitive Middle East.

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