Geophysical Research Abstracts Vol. 14, EGU2012-12181, 2012 EGU General Assembly 2012 © Author(s) 2012



Effects of Medieval Warm Period and Little Ice Age on the hydrology of Mediterranean region

Y. Markonis, P. Kossieris, A. Lykou, and D. Koutsoyiannis

Department of Water Resources and Environmental Engineering, School of Civil Engineering, National Technical University of Athens (NTUA)

Medieval Warm Period (950 – 1250) and Little Ice Age (1450 – 1850) are the most recent periods that reflect the magnitude of natural climate variability. As their names suggest, the first one was characterized by higher temperatures and a generally moister climate, while the opposite happened during the second period. Although their existence is well documented for Northern Europe and North America, recent findings suggest strong evidence in lower latitudes as well. Here we analyze qualitatively the influence of these climatic fluctuations on the hydrological cycle all over the Mediterranean basin, highlighting the spatial characteristics of precipitation and runoff. We use both qualitative estimates from literature review in the field of paleoclimatology and statistical analysis of proxy data series. We investigate possible regional patterns and possible tele-connections with large scale atmospheric circulation phenomena such as North Atlantic Oscillation, Siberian High, African Sahel Rainfall and Indian Monsoon.