Geophysical Research Abstracts Vol. 20, EGU2018-17527-1, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



How probable was the flood inundation in Mandra? A preliminary urban flood inundation analysis

George Markopoulos-Sarikas, Charalampos Ntigkakis, Panayiotis Dimitriadis, Georgia Papadonikolaki, Andreas Efstratiadis, Anastasios Stamou, and Demetris Koutsoyiannis

Department of Water Resources and Environmental Engineering, School of Civil Engineering, National Technical University of Athens, Greece

A recent flash flood event in the Mandra region west of Athens, Greece, turned urban roads into fast-flowing rivers, and caused many fatalities and economic damages. After this incident a great dispute arose whether the devastating results were due to the extreme nature of the storm event or to the poor flood protection works. In this study, we present a preliminary analysis of the urban flood inundation at the wider area by taking into account the uncertainty introduced by the input discharge, topography and hydraulic characteristics. Finally, we discuss how hydraulic works could reduce the severity of the event.

Acknowledgement: This research is conducted within the frame of the course "Stochastic Methods" at the School of Civil Engineering of the National Technical University of Athens (NTUA), Greece. The students, PhD candidates, Fellow Researchers, Post-Doc Researchers and Professors are struggling to deliver research results without any financial support.