Geophysical Research Abstracts Vol. 21, EGU2019-14072, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



Relation between GNSS derived IWV data and precipitation on selected high impact events over Greece

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The applicability of GNSS (Global Navigation Satellite Systems) derived IWV (Integrated Water Vapor) data, on the nowcasting of high impact precipitation events is examined. High temporal resolution (10-min) rain gauge data provided by the automatic weather stations NOANN network of the National Observatory of Athens (NOA) are used. The analysis was performed for selected high precipitation events spanning over an 8-months period during 2018. It was shown that the IWV values present good association to the severity of the precipitation, while the nowcasting of such events may be improved with the combined use of other sources of data, like satellite images or model outputs. The present work was carried out in the frame of the project "BalkanMed real time severe weather service (BeRTISS)" which is co-funded by the European Union and national funds of the participating countries.