



Relationships between hydro-climatology characteristics and karst spring triggering

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The Mediterranean region is characterized by the presence of small catchments and intermittent water streams. Karst springs play an important role on the definition of river dynamics either in the temporal or spatial aspects, consequently, the intermittence of the river is explained by the karst springs regimes. This work aims at understanding the relationships between the triggering of water flow on karst springs with climatic characteristics, by the example of the Vène river karst springs (South-east Mediterranean coast of France). Climatic variables were calculated from rainfall characteristics such as height, intensity, duration, and antecedent cumulated amounts. The analysis of the springs' hydrographs allowed distinguishing rainfall events that could trigger the water flow on karst springs from rainfall events that could not trigger them. The results showed that the water flow triggering at the main spring was mainly related to cumulative rainfall amounts before the occurrence of the triggering rainfall event. This study contributed to a better understanding of the karst springs responses to climatic factors.