

## **The water cycle of the Mediterranean : A continental perspective**

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The Mediterranean region is a hot-spot for changes in the water cycle as a large fraction of the renewable resource are being exploited. Thus making societies in the basin highly vulnerable to any evolution of the resource. How well can we estimate the currently available renewable water resources and how confident can we be in the changes predicted for the warming climate ? Furthermore, how does the water cycle connect processes over the catchment of the Mediterranean sea with the ocean and the atmosphere ?

In this presentation we will examine the role of the continental processes in the water cycle of the Mediterranean as whole and our ability to quantify the various fluxes. The quality of the modelled water fluxes will be illustrated with the regional Earth system model of IPSL. The question to be discussed is how far our current models are able to correctly predict the observed and expected changes in the water cycle. In particular, what is the role of the human intervention on the continental branch of the water cycle and how does it affect the other compartments.