



## **Modelling regional-scale climate change of the Mediterranean**

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Regional climate changes under global warming context are the most important motivations for the Mediterranean regional climate modelling. It is generally agreed that the Mediterranean region is one of the sensitive areas on Earth in the context of global climate change, due to its position at the border of the climatologically determined Hadley cell and the consequent transition character between two very different climate regimes in the North and in the South. In the framework of the French national programme GICC-MedWater, two regionally-oriented atmospheric models, LMDZ-Med (developed in IPSL in Paris) and ARPEGE-Med (developed in Meteo-France in Toulouse), were used to study the Mediterranean climate change for the end of the 21st century. Both models are global atmospheric GCMs, but with stretched grid and increased spatial resolution over the Mediterranean. The hydrological cycle and the impact on the Mediterranean overturning circulation are particularly studied.