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Climate change projections over the Mediterranean region

F. Giorgi

Abdus Salam International Centre for Theoretical Physics, Strada Costiera 11, 34100, Trieste, Italy (Tel + 39 040 2240425; email: giorgi@ictp.it)

The Mediterranean region shows unique features within the global change debate. First, it is a region particularly responsive to global climate change and second it is one of the few regions outside the northern high latitudes for which various generations of global and regional model simulations tend to give consistent climate change projections. As such, the Mediterranean can be considered a prominent climate change "Hot-Spot". This paper reviews the main change patterns emerging for the Mediterranean area from a suite of global and regional climate change experiments. Particular emphasis is given to changes in summer conditions, which are very pronounced (large warming and drying), relatively well understood from the process point of view, and make the Mediterranean highly vulnerable to climate change also from the impacts side. Comparison of future projections and observed trends is also presented to indicate a strong similarity between the two (particularly during the summer) and to suggest that the Mediterranean may already be experiencing the human influence on global climate.