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CLIMATE RESPONSE TO AN IDEALIZED ANOMALY OF THE MEDITERRANEAN SEA SURFACE TEMPERATURE

L. Li

Laboratoire de Météorologie Dynamique, IPSL/CNRS, Paris, France (li@lmd.jussieu.fr)

To understand the interactive role of the Mediterranean sea for the climate of the nearby regions, it is firstly necessary to know the atmospheric responses when sea surface temperature anomalies occur. Such responses are investigated with the atmospheric general circulation model LMDZ under idealized framework: the whole Mediterranean sea surface temperature is decreased and increased by 2 degrees respectively. The model is run for perpetual January and particular examination is undertaken at the beginning of the simulation in order to inspect the evolution of the response toward its final equilibrium state. The ensemble approach is adopted to overcome the chaotic characteristics of the atmosphere and to have a good climatological representation.