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Variability of the Mediterranean Sea surface temperature

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We present results from multi-annual (44 years) hydrodynamic simulations using the General Estuarine Transport Model (GETM) forced by ECMWF reanalysis data. The bulk fluxes are calculated during the simulations from the atmospheric input data. A statistical significant increase of 1.28degC in Sea Surface Temperature (SST) during the 44 year period is evidenced for the Mediterranean Sea. The mean warming rate of about 0.028$degC/year seems to coincide with independent estimates of global warming in this region. The first 20 years show only a very small warming whereas the major increase in SST takes place since about 1980. These results are further confirmed by a comparison to SST changes derived from independent satellite data for the last 19 years.