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## The statistical characteristics of turbulent air-sea fluxes in the Mediterranean Sea

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The statistical analysis of turbulent air-sea fluxes is not a common study for the Mediterranean Sea but an important one to characterize the probability distribution of air-sea fluxes and relates with the atmospheric variables. For this study, we intend to compute the turbulent air-sea fluxes for a longer period in the Mediterranean Sea. On the base of computed air-sea fluxes, this study aims to investigate the characteristics of probability density distribution. We analyze the probability distribution of turbulent air-sea fluxes using high-resolution model forecasts from the ECMWF. We assume that a two parameter Weibull probability density function (PDF) would be a good fit to model the probability distribution of the turbulent fluxes, while three parameters Skew normal distribution is an alternative one to characterize the tail of the distribution with both positive and negative value range. This statistical study focuses on the probability distribution of air-sea fluxes at the regional sea level which is related with the uncertainty analysis of ocean forecasting. In addition, the usage of higher resolution atmospheric forecast data would give us newer aspect in the probability distribution of air-sea fluxes. It would be an interesting study, how the parameters of the PDFs may vary over the short and longer time span as well as over the Mediterranean Sea domain. Overall, this study on the air-sea heat fluxes and its probability distribution will extend our knowledge on the air-sea energy exchange distribution for interannual and seasonal variability.