

**Dataset title:** mediterranean\_dataset.mat

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**Dataset variables:**

The dataset (.mat) contains the climatic sub-regions identified using k-means clustering, along with the associated data.

cluster\_map: regional clusters generated by applying the k-means clustering algorithm to sea surface temperature data spanning from 1981 to 2022. The dataset dimensions include longitude (lon) and latitude (lat).

lat: 'latitude' (degrees north).

lon: 'longitude' (degrees east).

ssh\_tg: A structure providing regional average tide gauge sea levels and median sea surface height estimates for each clustered region, as well as data dates expressed as date numbers.

**Reference:** Radin, C., Vicens-Miquel, M., Nieves, V. & Alvarez-Morales, J.L. Harnessing Machine Learning to Decode the Mediterranean's Climate Canvas and Forecast Sea Level Changes. *Journal of Climate* (2024). <https://www.mdpi.com/2225-1154/12/8/127#app1-climate-12-00127>