

Dataset title: regional_climate_dataset.mat

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Dataset variables:

The dataset (.mat) contains the spatio-temporal patterns of climate variability, identified using the k-means clustering algorithm, across the analyzed period.

- cluster_map: regional clusters generated by applying the k-means clustering algorithm to multidimensional temperature anomaly data spanning from 1955 to 2022. The dataset dimensions include longitude (lon), latitude (lat), variable type, and temporal scale.
- lat: 'latitude' (degrees north).
- lon: 'longitude' (degrees east).

Reference: Radin, C., Nieves, V. Unveiling Regional Climate Patterns Through Global Subsurface Ocean Temperature Data: An AI Multi-Layer Analysis Framework. Earth Syst Environ (2024). <https://doi.org/10.1007/s41748-024-00409-w>