

ACRÓNIMO DEL PROYECTO: ML-DREAM

TIPO DE PROYECTO: LEFE

TÍTULO DEL PROYECTO: Machine learning-based dimensionality reduction for environmental analysis and modeling

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RESUMEN: The main objective of this project is to apply deep learning dimensionality reduction techniques to atmospheric data in order to identify relevant spatio-temporal patterns for different applications such as forecast uncertainty quantification, data assimilation, seasonal forecasting, and chaos topological analysis. Our main hypothesis is that using non-linear mapping between the high and low dimensional spaces will improve the performance of these tasks, resulting in more accurate predictions and a better understanding of complex system dynamics.