OCNG/ATMO 651 Final Project: Linear Inverse Model of Tropical Sea Surface Temperatures

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Abstract

In this project, we employ the linear inverse model (LIM) to predict sea surface tempratures (SSTs).

Contents

1 Introduction

Penland and Magorian proposed a linear inverse model (LIM) to predict sea surface tempratures (SSTs) from satellite observations [1]. The LIM is a linear regression model that uses the satellite observations as predictors and the SSTs as the response variable. The LIM is a simple model that can be easily implemented and is computationally efficient. The LIM is also a useful tool for data assimilation. In this project, we employ the LIM to predict SSTs.

2 Dataset and Method

The Python script that processes the data and generates the figures is available at `https://github.com/jinjunliu/atmo-651/blob/master/Final/ATMO651_Final.ipynb`.

3 Results

4 Aknowledgements

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References

[1] C. Penland and T. Magorian. Prediction of niño 3 sea surface temperatures using linear inverse modeling. *Journal of Climate*, 6:1067–1076, 1993.