

Working Group XIII: Statistical Oceanography

Overview:

Statistical challenges in oceanographic data analysis, with a particular focus on Argo profiling float data

Challenges of Argo Data Analysis:

- 4D in-situ data (3D space + time)
- Large amount of data (> 1.6 million profiles each with 50{1,000 data points)
- Nonstationarity in both the mean and the covariance
- Non-Gaussianity (heavy tails, skewness, multimodality)
- There is information in the movement of the floats

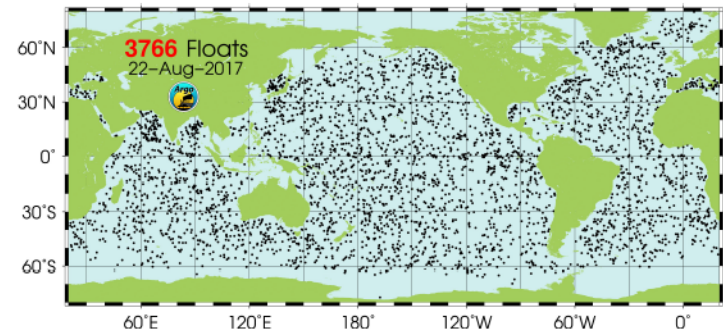
Potential Topics:

- Mapping of the ocean ow based on Argo
- trajectory and density data
- Improved spatio-temporal modeling
- Adding the vertical dimension to Argo mapping
- Analysis of biogeochemical variables
- Combination of Argo, satellite SSH and mooring data
- Machine learning in Argo data analysis

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Argo measures temperature and salinity in the upper 2,000 m of the global ocean

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