





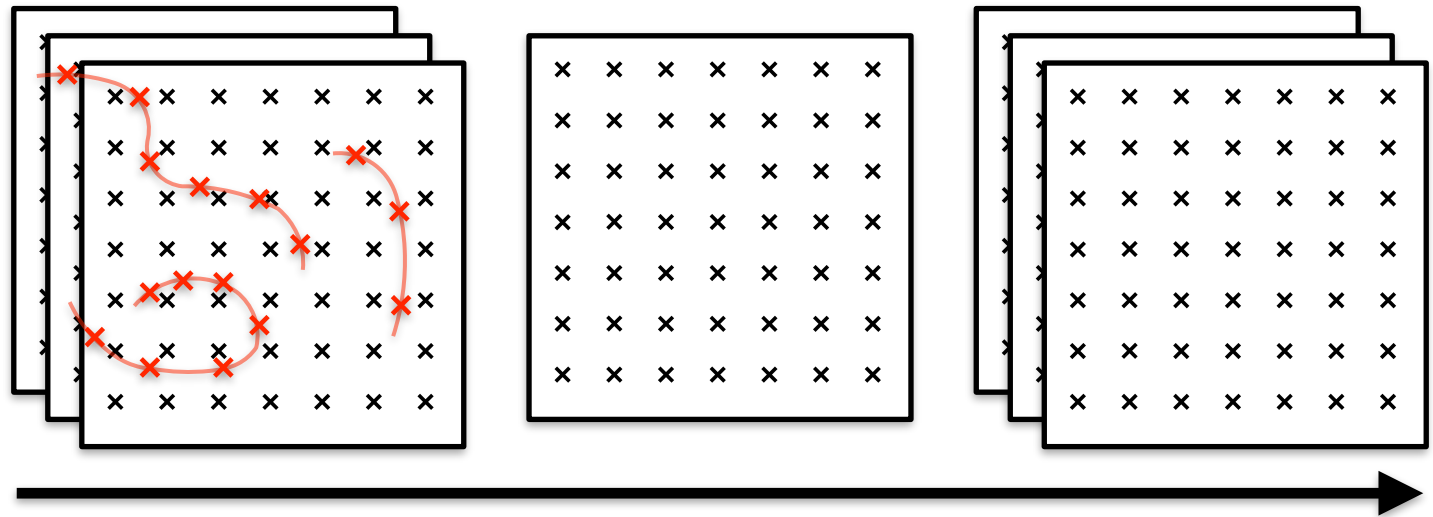


Lancaster  
University



# Spatio-Temporal Inference with Disjoint Spatial Locations

Zhang, R.-Y., Moss, H. B., Astfalck, L., Cripps, E. and Leslie, D. S. (2025). BALLAST: Bayesian Active Learning with Look-ahead Amendment for Sea-drifter Trajectories under Spatio-Temporal Vector Fields, *arXiv preprint arXiv:2509.26005*.



# Vanilla GP

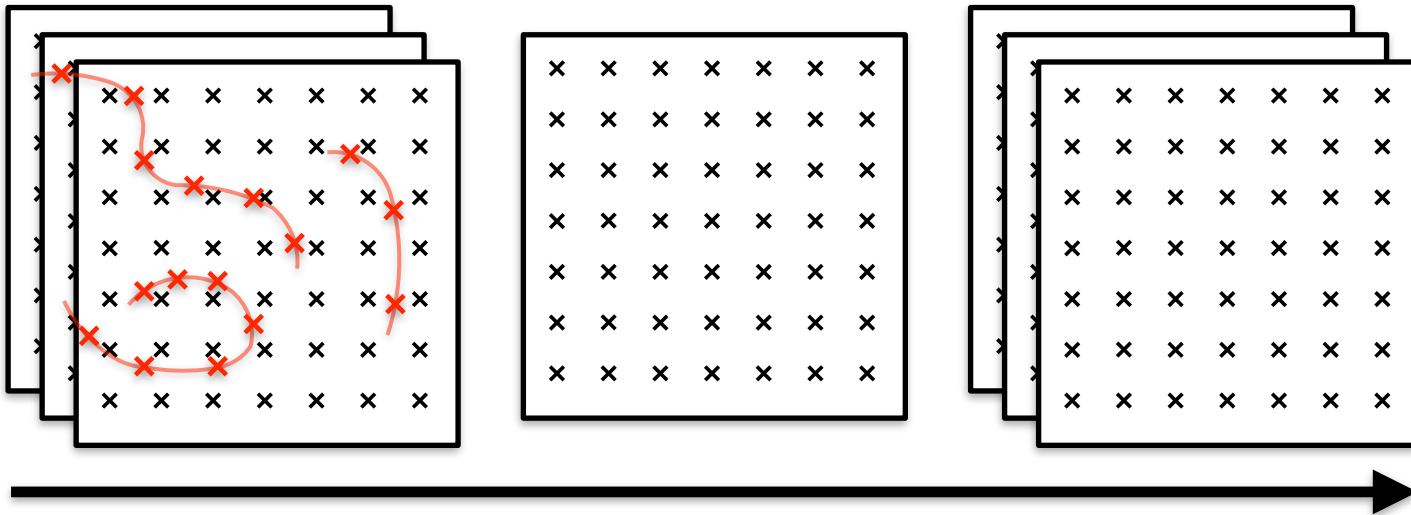
- Cheap to optimise
- Expensive to predict



# SPDE-GP

- Cheap to predict once regressed
- Expensive to regress

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# Gaussian Processes [Static]

$$f \sim GP(\mu, k)$$

