

# Geo-spatial methods for global health applications

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## PROGRAMME

### Day 1

- The class of geostastical problems.
- Exploring spatial correlation in the data: the variogram.
- The linear geostatistical model.
- Geostatistical prediction.

### Day 2

- The binomial geostatistical model.
- Monte Carlo maximum likelihood.
- Prevalence mapping.

### Day 3

- Spatial areal data
- Historical review of Disease Atlases
- Principles of Disease Mapping

### Day 4

- Bayesian approaches to Disease Mapping
- Using Posterior Quantities
- Bayesian Ranking
- High Risk Areas Profiling