

# Applied spatial data analysis with R: status and prospects

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# Introduction

- Spatial and spatio-temporal data are characterised by structures that distinguish them from typical tabular data
- The geometric structures also have spatial reference system information, and can adhere to standards, which may ease geometrical operations
- Satellite data and numerical model output data typically have regular grid structures, but these are often domain-specific
- Computationally intensive tasks include interpolation, upsampling, focal operations, change of support and handling vector data with very detailed boundaries, as well as modelling using Bayesian inference
- A further challenge to modelling using training sets with spatial data is how to split the observations in the presence of spatial dependence