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Title: Spatial data quality and error propagation in spatio-temporal modelling in practice

Abstract

Concern about spatial data quality and simple error propagation through model chains have been spotlight topics for a few decades, and so is spatio-temporal modelling. After addressing what I mean by these terms, I will explain why it is so hard to do them, and solve them as technical problems in a fairly generic, re-usable way. Use cases are taken from the UncertWeb project, which realizes the uncertainty-enabled model web, and in this context I will discuss what interoperability means in practice, but also what it promises. I will further address recent developments in the R project, related to dealing with uncertainties and modelling random variables, as well as the role of spatial, temporal and spatio-temporal aggregation in quantifying or communicating data quality.