

8 December 2023 – 10am CET, GBIII/214 and online (hybrid)



**Thomas van Dijk**

Institute for Infrastructure and Environment  
Ruhr University Bochum

## Improved geovisualisation through mathematical optimisation

There are many aspects of good geovisualisation, such as deciding the type of visualisation, collecting and processing the data, and doing the graphic design. Quite often one runs into layout "puzzles" – perhaps the most well-known one being label placement. Rather than solving such puzzles by hand, mathematical optimisation is an effective paradigm for improving visualisations by forcing us to formally define objectives and then providing efficient methods to optimise them. In this talk, I will briefly introduce this field of study and then illustrate it with our recent work on "optimal" drawings of geophylogenies (a type of visualisation used in biology).