

# HOW DO WE ENSURE BEST METHOD FOR USING SPATIAL MICRODATA? CONNECT: SMART SEMINAR SERIES

**SEMINAR:** Systematic tests of methods for spatial  
microsimulation

**PRESENTER:** Dr Robin Lovelace

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**WHERE:** 6.105

**WHEN:** 1:15pm, Monday, 19<sup>th</sup> January 2015

**RSVP:** 16<sup>th</sup> January to [smart-facility@uow.edu.au](mailto:smart-facility@uow.edu.au)

## TOPIC

Spatial microsimulation is a method of modelling individual-level processes within small administrative zones and has practical applications in many areas including transport modelling, economic policy evaluation and infrastructure planning. This presentation will describe a range of model tests that have been undertaken on Iterative Proportional Fitting (IPF), and plans to test additional algorithms, implemented in various languages. The research proposes a series of systematic, reproducible tests using publicly available code and data; the results demonstrate the sensitivity of IPF to initial conditions, and the dramatic impact of software decisions on computational efficiency. The presentation will conclude by proposing an agenda for robust and transparent future tests in applied research relying on spatial microdata.

## BIO

Robin's research focusses on developing new methods of modelling spatial data and applying these to real world problems. Robin trained in geography (BSc) and Environmental Science (MSc) before undertaking a PhD into the energy costs of commuting.

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