**Intermediate R for Spatial Analysis**

**Learning Outcomes**

* Know how to perform a range of spatial analysis in RStudio and GeoDa
* Develop your confidence in using RStudio for data handling, scripts and custom functions

**Contact**

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**Location**

Training Room 1 (IT Lab, #116) & Staff Meeting Room (refreshments, #215), Sydney Jones Library, University of Liverpool.

**Outline of the day**

* 9:30am – 9:45am – Registration & Refreshments
* 9:45am – 10:05am – Spatial data and Exploratory Data Analysis in R
* 10:05am – 10:45am – Practical 1 RStudio and Map Making recap
* 10:45am - 11:15am – Spatial Analysis
* 11:15am - 12:30pm – Practical 2 Performing Spatial Analysis
* 12:30pm – 1:30pm – Lunch
* 1:30pm – 1:45pm – Spatial Decision Making
* 1:45pm - 3:00pm – Practical 3 Buffers and Intersections
* 3:00pm - 3:15pm – Tea/Coffee
* 3:15pm - 4pm/4:30pm – Practical 4 Regression

**Useful Websites**

* Electronic versions of all resources: <https://github.com/nickbearman/intro-r-spatial-analysis>
* Course survey: [bit.ly/1QmrFoB](http://bit.ly/1QmrFoB) or
* <https://oxford.onlinesurveys.ac.uk/intermediate-r-for-spatial-analysis-4th-march-2016>
* Data:
  + Global Administrative Areas ([www.gadm.org](http://www.gadm.org))
  + OS Open Data (<https://www.ordnancesurvey.co.uk/opendatadownload/products.html>)
  + Free GIS Data, Robert Wilson (<http://freegisdata.rtwilson.com/>)

**Useful Points**

* Remember that while an electronic version of the notes is available, typing out the R code is a useful exercise for you.
* Remember that a green post it means you are progressing well, a red post it means you need help (particularly useful if I am busy with someone else, so can’t come to you straight away).
* If you have time, you can complete the optional exercises, but if you don’t have time you don’t need to.

