## Geographic Data Science

Local Spatial Autocorrelation

Dani Arribas-Bel

## Local Spatial Autocorr.

## Local Spatial Autocorr.

"Clusters"

Pockets of spatial instability

Portions of a map where values are correlated in a particularly strong and specific way

[High-High] + SA of high values (hotspots)

[Low-Low] + SA of low values (coldspots)

[High-Low] - SA (spatial outliers)

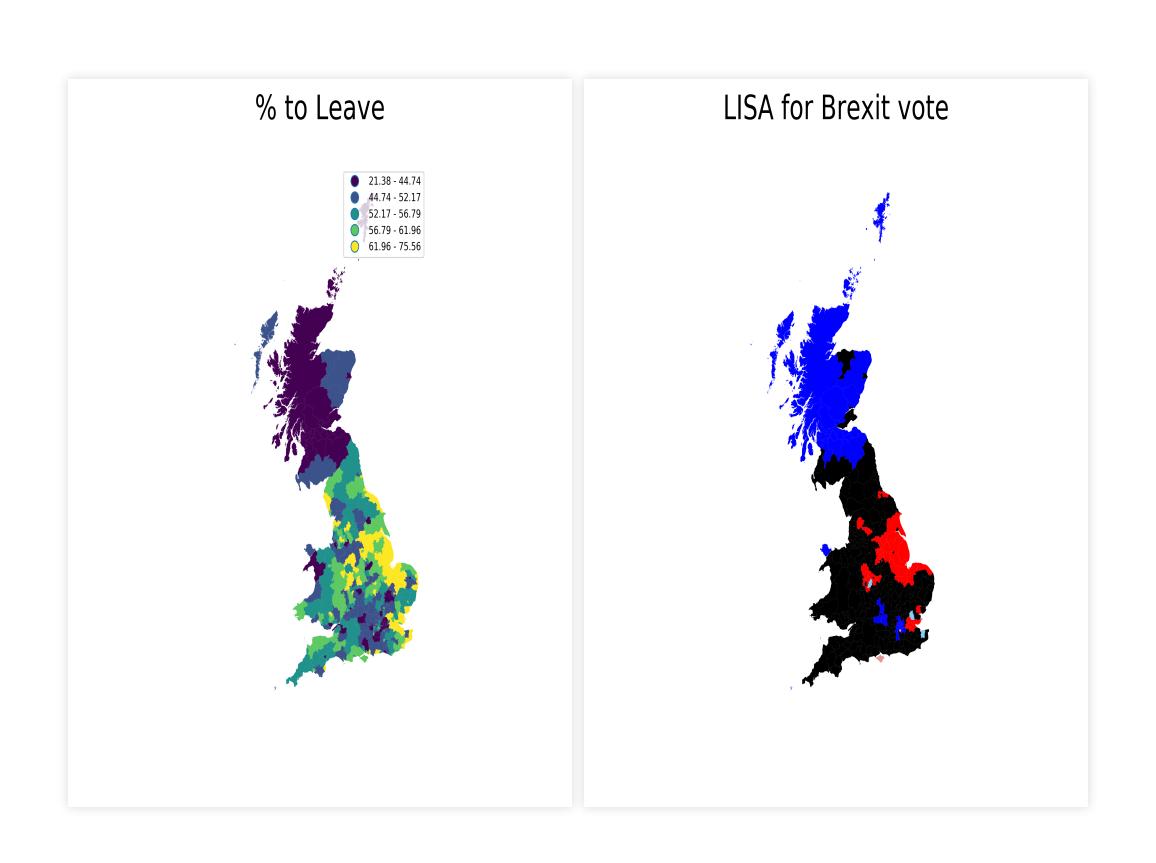
[Low-High] - SA (spatial outliers)

## LISAs

Local Indicators of Spatial Association

Statistical tests for spatial cluster detection → Statistical significance

Compares the observed map with many randomly generated ones to see how likely it is to obtain the observed associations for each location





A course on Geographic Data Science by Dani Arribas-Bel is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.