**Dissertation title** (this may change as you progress):

Estimation of crop yield in UK on geographically weighted regression model

**Dissertation aim(s) or research question(s)** (these outline what you want to achieve):

Create a model which enables to estimate crop yield in UK based on GWL model, by using UK census or free satellite imaginary data

**Research topic**

* My career is related to government statistics for Japanese agriculture, which plays an important part of provide the basic information for agricultural policy in Japan.
* Estimating the amount of crop correctly and efficiently is essential for national food security.
* Ground-based field survey is still an essential process for regional and national level estimation, but it is time-consuming, subjective, and costly. By utilizing data well, such as ground survey data, crop yield can be estimated in multiple ways.

**Research methods**

* Data collection: satellite imaginary data from free source and agricultural census data
* Pick up some explanatory vriables: vegetation indices from satellite imaginary data / regional crop data from agricultural census data in UK
* Use GWL model to estimate the amount of crop

**Ethical approval:** Not needed

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