Project 1 Files Menu

**SpatialM**

Inlcuding all the functions for the final package. The function for simulation or application will not be here.

fnCreateMesh.R

fnPredictMelding.R

fnPredictDown.R

fnCheckInputsMelding.R

fnCheckInputsDown.R

plot\_sp.R

fnAggregating.R

Vignette

How to aggregating

How to do Bayesian sampling

Exceedance probability

The function plots from the predict function, and only works when we predict a continuous surface.

Attention: all the prediction functions only work for no covariates situations. They only use the response to do predictions. If you want to do something related to covariates, go to the application part and modify the function there.

**Data**

Including all the data used in the project. On the raw\_predictor, the data preprocessing functions are also included.

**data**

The final data for application, incuding point data and areal data with processed covariates.

Temperature, precipitation, and road information.

Rdata files include UK\_PM 2.5 files projection 2158

**predictor**

.nc files of the temperature/ precipitation

Rdata file of all the raw data

scriptRuiman.r processing road information raw data

mask.r processing nc files, aggregate all the raster files to dearea size and transfer to sf obj

**simulation**

Inlcuding all the functions for simulation, even repeated functions on SpatialM. Including all the previous simulation results.

Simulation\_main.R

The main function of simulation. If not run on the R cloud, please change the address of the workspace.

Application

App\_main. R

fnPredictUK\_wC.R

Code to do cross-validation comparison.