GEOSTAT 2018

Day 1

R sig geo => blog geostat
https://github.com/rsbivand/geostat18
https://edzer.github.io/rstudio_conf/geostat.html#1 presentation
simple features a lire https://journal.r-project.org/archive/2018/RJ-2018-009/RJ-2018-009.pdf

https://cran.r-project.org/web/packages/sf/vignettes/sf1.html
https://www.r-spatial.org/events/ stars

tibble allows adding list per row/record with different length adding anything = called list-column

Mapview

https://github.com/tim-salabim/geostat2018/blob/master/slides/appelhans_geostat2018.pdf
web based map add points and features associated these points in interactive way

mapedit

https://www.r-spatial.org/r/2018/07/15/mapedit_newleaflet.html#feature-attribute-editing

geocomputation

https://geocompr.github.io/presentations/geostat18-geocomputation.html#1
book https://geocompr.robinlovelace.net/spatial-cv.html
https://geocompr.github.io/presentations/
Source code: https://github.com/geocompr/geostats_18

basic tutorial creating maps

https://github.com/Robinlovelace or book link above
https://github.com/Robinlovelace/Creating-maps-in-R

tmap animation

Target oriented cross validation

https://github.com/HannaMeyer/Geostat2018/blob/master/slides/ML_SpT.pdf
either take out one location with all its time points or one time points for one specific location as validation

Tomislav talk: regression kriging

kriging https://github.com/thengl/GeoMLA :
Add distance as predictor without explicitly adding the coordinates because it causes problem

Day2

Tidy spatial analysis tutorial Edzer Pebesema

https://edzer.github.io/UseR2017/geostat2018.html
RMd is here https://raw.githubusercontent.com/edzer/UseR2017/master/tutorial.Rmd
solution exercise
https://raw.githubusercontent.com/edzer/UseR2017/master/solutions.Rmd

Mapview Mapedit practice

Tim Salabim github
https://github.com/tim-salabim/geostat2018/tree/master/code

Cross validation

file:///Users/mkrit/Documents/geostats_18/CrossValidationHannaMeyer/Geostat2018-master/practice/LUCmodelling.html

Google earth engine to explore
https://developers.google.com/earth-engine/getstarted

Day 3

Jakub Nowosad GeoPAT 2
https://github.com/Nowosad/geostat18

Spatial data tidyverse
Robin https://geocompr.github.io/presentations/spatial-tidyverse.html#1

http://opengeohub.org

Jannes RGIS bridging
https://github.com/geocompr/geostats_18/blob/master/pres/r_gis_bridges/01_r_gis_bridges.pdf

tutorial with an overview
ftp://ftp.bgc-jena.mpg.de/pub/outgoing/mforkel/Rcourse/spatialR_2015.pdf

Spatial cross validation mar package
https://github.com/geocompr/geostats_18/blob/master/pres/spatial_cv/01_spatial_cv_with_mlr.pdf
https://mlr-org.github.io/mlr/

https://github.com/geocompr/geostats_18

Day 4

Grass to analyse environmental data: Allows dealing with huge data giving only multiple regression
https://neteler.gitlab.io/grass-gis-analysis/

Veronica Andreo biologist uses remote sensing & GIS for disease ecology => travaille a l'institut tropical in Argentina
https://gitpitch.com/veroandreo/grass-gis-geostat-2018/master?p=tgrass&grs=gitlab#/
https://gitlab.com/veroandreo/grass-gis-geostat-2018/blob/master/tgrass/code.sh
Gentle introduction
https://gitpitch.com/veroandreo/grass-gis-geostat-2018/master?grs=gitlab#/14

MODIS LST data
https://zenodo.org/record/1135230#.W3-9NC2mPq0
TGRASS easily handle huge time series
Tutorials on GRASS GIS
4:24Getting started with GRASS GIS GUI
https://www.youtube.com/channel/UCnXYZpB1oDiK44tV2w9ypvA/videos
https://www.youtube.com/channel/UCc37pVh-WE46Xkqeq-KZQsA
http://www.portailsig.org/content/grass-gis-pas-pas-pour-les-debutants-1-demarrage-de-l-application-secteurs-locations-jeux-de

Handling big data
https://github.com/Environmetrix/BigSpatialDataR/blob/master/tex/Processing_large_rasters_R.pdf
Tutorial:
https://github.com/Environmetrix/BigSpatialDataR

scalable raster analysis Edzer
https://edzer.github.io/prague/eo.html

Google earth engine case of study malaria risk mapping
https://earthengine.google.com/case_studies/
https://www.ucsf.edu/news/2014/09/116906/ucsf-google-earth-engine-making-maps-predict-malaria
OpenEO european project: allows the use of big data in R python javascript
https://github.com/Open-EO
http://openeo.org/openeo/news/2018/03/17/poc.html

Day5

Species distribution models

https://github.com/Environmetrix/PNVmaps/tree/master/tutorial
Peer reviewed paper
https://peerj.com/articles/5457.pdf

Expert statistical epidemiology Barry rowlingson
http://barry.rowlingson.com/teaching.html

Go to presentation to see some go Barry's tutorials
https://www.maths.lancs.ac.uk/~rowlings/Teaching/Sheffield2013/index.html

link2gi
https://github.com/gisma/link2gi2018

Application of Land surface temperature to predict distribution of tiger mosquitos
a lot of work of Netler à lire
https://www.mundialis.de/en/neteler/
MODIS and vector born disease
https://earthzine.org/2014/04/16/modis-and-vector-borne-diseases/