PYTHON GEODATA ANALYSIS

SPATIAL ECOLOGY

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Background

EDUCATION:

BSc in Geological Sciences

MSc in Geotechnologies

PRACTICAL SKILLS

Programming: Bash, Python

GIS & Remote Sensing Tools: GDAL, PKTOOLS, GRASS

HPC: SLURM workflows

INTEREST:

Geo-enviromental Global scale modeling

Global Early warning systems

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Lesson content

Lecture 9: Tuesday, 21 Oct, 2025

- Exploring Matplotlib and Seaborn for scientific plotting

- Introduction to Rasterio for raster processing and visualization

- Introduction to GeoPandas for vector processing and visualization

Lecture 10: Thursday, 23 Oct, 2025

- Brief introduction to Random Forest

- Exploring training data (GEDI dataset) and model predictors

- Running a simple ML model and exploring RF parameters

- Prediction on raster

MATERA WEEK: 24-28 Nov, 2025

Support with coding, data management and model development

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