

Geographic Data Science for Sustainability

EC2U Autumn School – University of Jena

Date: 07 – 09/10 October 2025
Place: Ernst-Abbe-Platz 8, room 202/204
Instructor: Prof. Dr. Alexander Brenning



PROGRAM

07.10.2025	09:00	Welcome & Logistics
	09:30	Introduction & Overview
	10:00	Lab: Using R as a GIS: Handling and visualizing geospatial data in R
	12:00	<i>Lunch break</i>
	13:00	Introductory lightning talks by participants
	14:15	Overview of machine learning methods and challenges
	-17:00	<i>(with coffee break at ~15:00)</i>
08.10.2025	09:00	Lab: ML-based modelling landslide susceptibility in R
	10:30	Lecture & lab: Machine learning model assessment
	12:00	<i>Lunch break</i>
	13:00	Recorded AI4Good Webinar: Food security & AI
	14:00	Lect. & Lab: Hyperparameter tuning (Dr. Shijie Jiang, MPI-BGC Jena)
	-17:00	<i>(with coffee break)</i>
09.10.2025	09:00	Lecture: Spatial ML models
	10:30	Lab: ML-based regionalization of environmental contamination
	12:00	<i>Lunch break</i>
	13:00	Lecture & lab: Model interpretation and explainability
	16:00	Kick-off of project assignment
10.10.2025	08:50	<i>(Optional)</i> Field trip to the Dohlenstein landslide (hiking tour)

Follow-up activities required to obtain ECTS credit:

30.10.2025, 14:00 CET Online student presentations of data analysis projects (10 min. each)
14.11.2025 (by end of day) Submission of project assignments



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