

Data Analysis with AI - From First Line of Code to Meaningful Visualization

Objective

In this online workshop, participants will gain hands-on experience integrating generative AI effectively into scientific data analysis. Specifically, they will learn how to:

- Leverage AI tools specifically for coding in data analysis even without prior programming experience
- Understand how language models such as ChatGPT can accelerate and simplify data analysis
- Efficiently develop and customize generative code with AI support and apply reflective pair programming techniques
- Identify potential errors and limitations in AI-generated analyses and evaluate them critically
- Effectively create and interpret visualizations and diagrams with AI assistance

Description

Data analysis is a core tool in scientific research, and programming languages such as Python, R, or MATLAB are often essential. They enable researchers to structure large datasets, analyze them, and transform them into meaningful results. For many researchers, getting started with programming presents a challenge: time-consuming, technically demanding, and often intimidating.

With the emergence of generative AI tools like ChatGPT, Claude, or GitHub Copilot, new possibilities are opening up. These tools help create appropriate code faster, automate typical analysis processes, and significantly improve how you work with data, regardless of your experience level.

Methodology

The format alternates between brief presentations, interactive exercises, experience sharing, and guided applications, all aimed at helping you tackle your research questions more efficiently using AI-assisted code.

Two experienced trainers will guide the workshop and provide individualized support throughout the implementation process. The methods taught can be applied directly to your everyday scientific work.

Conditions

- A workshop for anyone working with data who wants to explore the potential of AI responsibly and practically.
- Prior knowledge about usage of generative AI, coding, or prompting techniques is not required.

Trainers



Dr. Markus Gyger
Gyger-training.de,
Ettenheim

Dr. Markus Gyger is a trainer and systemic coach with a background in biophysics. He works with scientists on research communication, AI-supported workflows, and career development, helping them navigate complex demands in and beyond academia.

www.gyger-training.de



Dr. Alexander Britz
Alex Britz Facilitating
Science, Berlin

Dr. Alexander Britz is a trainer specializing in communication skills, data analysis, and artificial intelligence. He holds a PhD in physics and has previously worked as an interdisciplinary scientist between chemistry, physics, and materials science.

Organizational Information

Language / Format	English / Online
Target group	Doctoral Candidates at all stages and Postdocs (R2/R3) from all faculties
Date	Monday-Wednesday, 19-21 October 2026, 9:30 – 13:00
Registration	For registration click here