

## Introduction to data analysis with R

The programming language R is a widespread and popular tool for scientists of all fields. It allows fast and reproducible research data analysis and offers specific functionality through its many extension packages. R is completely free and has a very active and supporting community which makes it accessible and fun to learn.

### Workshop description

The main goal of the workshop is to give you the basic skills you need to start analysing your own research data with R. You will learn a complete R workflow for data analysis, starting with reading, preparing and summarizing research data, and visualizing the results. Starting from this knowledge basis, you can confidently expand your R skills in a direction that is most useful for your own research work.

In 4 workshop days we will cover the following topics:

- Introduction to R and R Studio
- Basics of R Programming
- Good programming practice
- Data analysis using the tidyverse packages (preparing, filtering, grouping, re-organizing, data visualization with ggplot, ...)
- Getting started with your own data analysis

### Course outline and concept

To learn programming, it is essential to practice writing code yourself. Therefore, every input session will be followed by practical exercises. On the last day, you can bring your own research data or work with a real-life data set provided by me and apply the methods that you learned in the course.

The course will be in English and will be in an online format.

### For whom is this workshop?

This workshop is for beginners without prior experience in R or any other programming language. You can still participate if you already know other programming languages though.

### Who is the instructor?

I am a scientific programmer at Freie Universität, working in theoretical ecology. R is an integral part of my everyday workflow since many years and I love passing on my knowledge and enthusiasm about this great tool. I have already taught courses on statistics with R for biology master students and PhD students.

If you have any questions regarding the course, please don't hesitate to contact me via [selina.baldauf@fu-berlin.de](mailto:selina.baldauf@fu-berlin.de).