

Data visualization: Theoretical background and application in R with ggplot2

Data visualization plays a pivotal role in presenting and publishing research results and there are various pitfalls to be aware of when creating good figures. This course will cover the science behind good data visualization as well as its practical realization using ggplot2 in R.

This 2-day course consists of a theoretical introduction in the morning of day 1, followed by a practical part of 1.5 days. The workshop is covering the basics of ggplot2 in R and no prior experience with this particular package is necessary. Basic knowledge of data manipulation in R and using RStudio is required. We have a max. capacity of 12 persons, registration is on a first-come-first-served basis

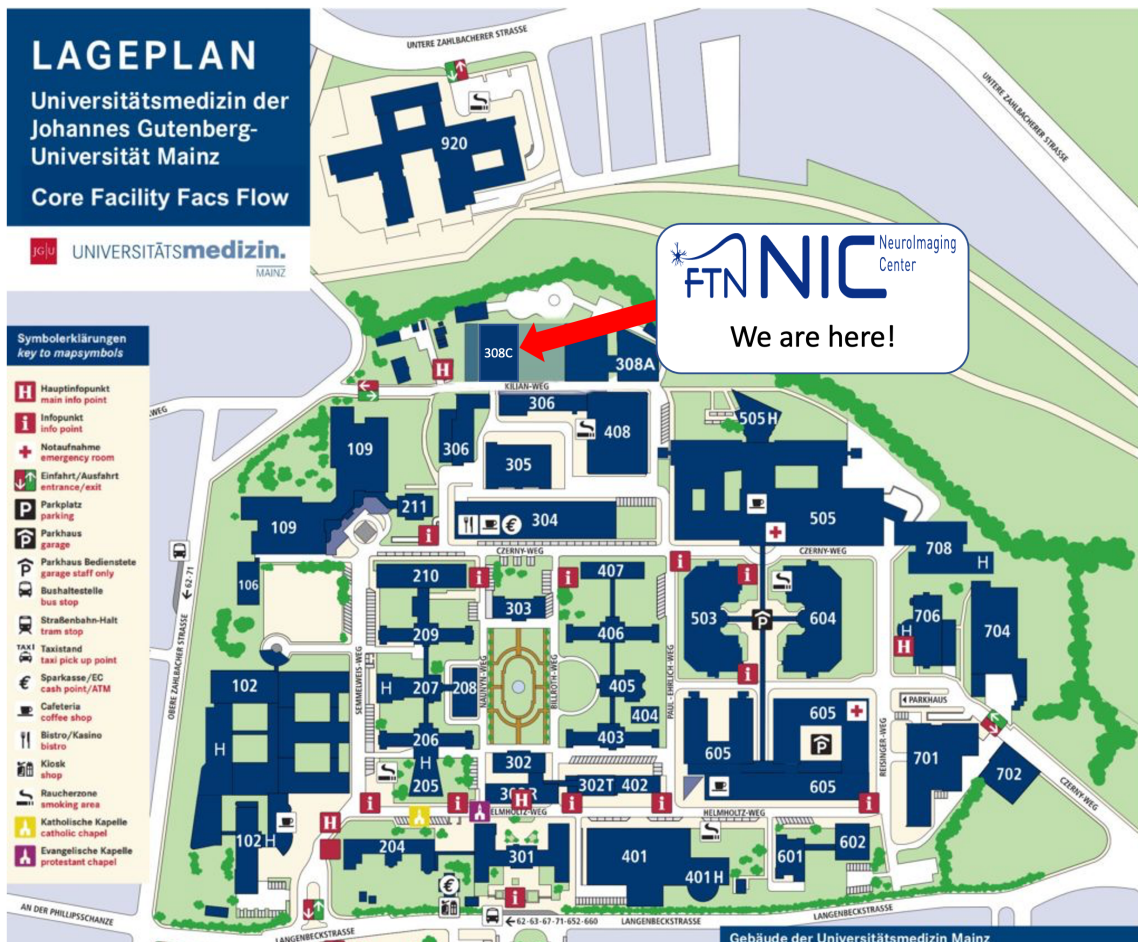
Goals:

- Acquire fundamental knowledge about the art and science of data visualization.
- Learn the basic architecture of the R package ggplot2.
- Apply ggplot2 to create plots of different complexities.
- Customize your plots according to your own wishes.

Language: English

Location: NIC seminar room, Building 308C, ground floor, for both theory and practical sessions

Map of the University Medical Center (Langenbeckstr. 1, 55131 Mainz):



Registration: Matthias Zerban, matthias.zerban@unimedizin-mainz.de

Please indicate your field of research and what kind of data you usually work with.

Programme:

Monday, Jan 22nd

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| 10:00 – 12:00 | Introduction: The art and science of data visualization <i>By Kenneth Yuen, Neuroimaging Center</i> |
| | Lunch break |
| 13:00 – 14:45 | Practical session 1: Introduction to ggplot2 and its plotting 'architecture' <i>By Matthias Zerban, Neuroimaging Center</i> |
| | Coffee break |
| 15:00 – 17:00 | Continuation of practical session 1 <i>By Matthias Zerban, Neuroimaging Center</i> |

Tuesday, Jan 23rd

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| 10:00 – 12:00 | Practical session 2: Basic plotting with ggplot2 <i>By Matthias Zerban, Neuroimaging Center</i> |
| | Lunch break |
| 13:00 – 14:45 | Practical session 3: Advanced plotting and customization <i>By Matthias Zerban, Neuroimaging Center</i> |
| | Coffee break |
| 15:00 – 17:00 | Continuation of practical session 3 <i>By Matthias Zerban, Neuroimaging Center</i> |