# **Introduction to R Workshop**



### Center for Comparative Politics | Universität zu Köln

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In this 2-days R workshop you will master the basics of R (in RStudio). This is a *'hands-on'* course where participants are given generalizable bits of R-code to work on and are expected to actively participate. In addition. it intends to prepare prospective students of *Dr. Bruno Castanho's* course **"Introduction to Quantitative Analysis"** which will take place during this winter semester.

### Vancancies: 25

Please fill in this form to subscribe to the workshop (link).

If you have questions, email: azevedo@wiso.uni-koeln.de.

#### Location

Computer pool N.3 in Weyertal 122 (Kursraum 3, UG, 25 Sitzpl., -1.01)

#### **Date**

4th-5th October 2018 (Thursday-Friday), from 09:30 untill 17:30.

## **Course Description**

Materials and generalizable R code will be provided as to maximize student's learning in class.

- Install R, R-Studio, TinyTeX and ('best') R packages (for beginners). Step-by-step.
- Learn how to set up RStudio panels, options, as well as understand the basic uses for each type of R input/output files (.R, Rdata, .rmd, Rproject, .html, .pdf, Shiny).
- Learn how to importing and export data, and deal with vectors, sequences, operators, missing values, characters, factors, arrays, matrices, data-frames and lists.
- Learn about the several ways to manipulate data: subset, convert, merge, cast/melt (wide-to-long & long-to-wide formats).
- Learn about the basics of data exploration in R: summaries, tables, cross-tabulation and basic statistics.
- Discuss the Reproducibility crisis in science, and learn how to do reproducible research documents in R with R markdown.

## Intended audience and prerequisite

- There are no prerequisites or necessary prior knowledge to attend this class.
- But it is desirable to bring along your laptops.