



# Programming in R for data analyses

*Prof. Dr. Stephan Frickenhaus, AWI*

<b>Date &amp; Time:</b>	5 & 6 April 2018	9:00-16:00
<b>Location:</b>	E - 4025	
<b>Language:</b>	English	
<b>POLMAR credit points:</b>	2	
<b>Registration:</b>	<a href="mailto:info.polmar@awi.de">info.polmar@awi.de</a>	

## **Course content:**

The course will lay conceptual and technical basics to the needs for R practice, e.g., in the statistics courses offered by Dieter Wolf-Gladrow within POLMAR or your own application field of data analyses. I will focus on data input and output methods, processing and connecting data from many files, data reformatting for different applications, data transformation and usage of R packages and their structured data objects; in particular, accessing analyses results from objects is trained. Additional techniques are trained, such as loop-programming, code-optimization by “apply” functions, data organisation and processing in lists. Many coding suggestions are given to improve readability and reusability of your R programs.

**Day 1:** Effectively organising R projects, theory of R data structures, addressing data in large tables, Graphical data exploration, filtering subsets

**Day 2:** Loop and list programming, performance issues, putting many tables together

## **Target group:**

Data analysts, requiring programming basics and knowledge of advanced features to usage of R packages and data objects. *This course is a pre-requisite for participation in the Multivariate Statistics Course, held by Prof. Michael Greenacre between April 23 and 25 this year!*

## **More information:**

You need a notebook computer, installation of R (free of charge from r-project.org) and RStudio (free of charge from rstudio.com).

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*Our courses are generally free of charge for all participants. However, they do have a price and can cost POLMAR as much as 150 € per day per student. Please take this into account when cancelling your place at the last minute.*

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