





The Center for Statistics in Oldenburg and Bremen (ZeSOB) organizes a

# **Methods Week in Statistics**

from February 14<sup>th</sup> to 16<sup>th</sup>, 2024, at the University of Bremen, on the topic:

# "Efficient R Programming"

R is a robust statistical programming environment, widely recognized for its versatility. Its open-source framework makes it accessible across all platforms. With over 20,000 packages on CRAN and many more in the corporate world, R offers a comprehensive suite of solutions for statistical programming. During our two-day workshop at the University of Bremen we focus on efficient programming in R, discussing strategies to optimize your code for speed, while maintaining its readability and shareability. The workshop covers essential topics such as debugging and profiling in R, R's role in High Performance Computing, and how R interfaces with C++. We also delve into object-oriented programming in R as well as the process of R package development. For the final "bring your own problems" session, participants are encouraged to bring their own R code. Join us to enhance your understanding of R and to take your statistical programming skills to the next level.

#### Lecturers:

Prof. Dr. Peter Ruckdeschel, University of Oldenburg Lars Andersen, Boehringer Ingelheim Pharma GmbH & Co. KG

## **Locations and Lecture Rooms:**

Wednesday (14.02.) in GW2, 3<sup>rd</sup> floor, Room B 3009 Thursday (15.02.) and Friday (16.02) in SFG, 1<sup>st</sup> floor, Room 1010

### **Registration fees:**

Bachelor and master students:	free of charge		
Participation type	onsite	online	
Academic employees (including doctoral researchers):	65€	25€	
Non-academic attendants:	130€	50€	

The registration fee covers course material (slides in PDF format for password-protected download), as well as drinks and snacks during the coffee breaks and a light lunch on Thursday and Friday.

Please register via email to: <u>zesob22@uni-bremen.de</u> until February 7 and specify the following information: **first and second name, invoice address, registration category** (student, academic, non-academic), **and participation type** (online or onsite).

The registration becomes active once the registration fee is transferred to the bank account which you will find on the invoice. <u>Important:</u> Please provide the **invoice number, invoice date and your name** in the reference of your bank transfer!

### **Program of the ZeSOB Methods Week in Statistics on Efficient R Programming:**

# Wednesday, 14.02.2024 (GW2, 3<sup>rd</sup> floor, Room B 3009)

13:45h Welcome (ZeSOB team)

14:00h – 16:00h Efficient Programming in R

16:00h – 16:30h *Coffee Break* 

16.30h – 18.00h R Interfaces

19.00h Dinner (self-financed, place to be announced)

### Thursday, 15.02.2024 (SFG, 1<sup>st</sup> floor, Room 1010)

09.00h - 10.30l	Object Oriented	Programming

10:00h – 10:30h *Coffee Break* 

11.00h – 12.30h **Debugging & Profiling** 

12.30h – 13.30h *Lunch break* 

13.30h – 15.00h R package development

15:00h – 15:30h *Coffee Break* 

15.30h – 17.00h Testing in R

18.00h Dinner (self-financed, place to be announced)

### **Friday, 16.02.2024 (**SFG, 1<sup>st</sup> floor, Room 1010)

09.00h – 10.30h	R and P	vthon
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10:30h – 11:00h *Coffee Break* 

11.00h – 12.30h High Performance Computing in R

12.30h – 13.30h *Lunch break* 

13.30h – 15.00h "Bring your own problems"

