



**2nd School
on Data Analysis
and Programming
with R
26–28 August 2019**

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**1st Euregio
Summer School in
Data Science for
the Social Sciences
28–31 August 2019**

2nd SCHOOL ON DATA ANALYSIS AND PROGRAMMING WITH R

Monday 26 – Wednesday 28 August 2019, Free University of Bozen-Bolzano

- R is becoming the standard computing platform for data manipulation and analysis due to many advantages over other programs. In this course students will learn how to carry out statistical programming, visualize and manipulate complex data sets, fit and interpret a variety of statistical models. This course will introduce students to advanced computing skills including graphics for the visualization of complex data, parallel programming and package building procedure, as well as statistical skills including methods for regression and classification.

**1st EUREGIO SUMMER SCHOOL IN DATA SCIENCE
FOR THE SOCIAL SCIENCES**

Wednesday 28 – Saturday 31 August 2019, Free University of Bozen-Bolzano

Our school brings state-of-the-art data science methods to post-graduate students and industry practitioners, thus enabling them to solve modern data analysis problems. After a gentle introduction on statistical inference and statistical learning theory, the lectures will focus on specific methods for data types commonly encountered in the social sciences, including network data, time series, spatial data and panel data.

Target audience and pre-requisites:

- Post-graduate students (Master and PhD students) who want to develop their data analysis skills through modern data science methods and learn how to use the use R software.
- Researchers and industry practitioners working with data in private and public institutions.

Although there is no formal prerequisite, we recommend the following:

- a basic understanding of elementary statistics/econometrics is for the 2nd School on Data Analysis and Programming with R (e.g., one or two intro-level statistics or econometrics courses at the undergraduate level)
- basic knowledge of the R computing environment and basic understanding of elementary statistics/econometrics (e.g., one or two intro statistics or econometrics courses at the undergraduate level) are recommended for the 1st Euregio Summer School in Data Science for the Social Sciences. Hence attendance of the R School integrated in this program is strongly encouraged.

PROGRAMME

The following is a list of scheduled teaching modules. There will be approximately 8 hours of class starting at 9:15 each day. Lunches and coffee breaks will be catered.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:30–9	Registration	Registration	Registration	Registration	Registration	
9–9:15	Opening school					
9:15–10:45	Introduction to R Pappadà	Linear Methods for Regression & Classification Filzmoser	Parallel Programming and Package Building Agostinelli	Likelihood-based Methods and Model Selection Ferrari	Analysis of Network and Time Series Data Nunes	Advanced Regression Methods II Fasiolo
10:45–11:15	Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
11:15–12:45	Introduction to R Pappadà	Linear Methods for Regression & Classification Filzmoser	Parallel Programming and Package Building Agostinelli	Likelihood-based Methods and Model Selection Ferrari	Analysis of Network and Time Series Data Nunes	Advanced Regression Methods II Fasiolo
12:45–14	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break	Student Competition Awards Presentation + Farewell lunch
14–15:30	Data Visualization Templ	Linear Methods for Regression & Classification Filzmoser	Introduction to Inference Vidoni	Advanced Regression Methods Umlauf	Analysis of Network and Time Series Data Nunes	
15:30–16	Coffee	Coffee	Coffee	Coffee	Coffee	
16–17:30	Data Visualization Templ	Parallel Programming and Package Building Agostinelli	Introduction to Inference Vidoni	Advanced Regression Methods Umlauf	Advanced Regression Methods II Fasiolo	
17:45–19:15	Data Visualization Templ		Introduction to Inference Vidoni	Advanced Regression Methods Umlauf		
19:30–23		Social Dinner			“Data Science Under the Stars” Competition Student*	

ORGANIZING COMMITTEE

Claudio Agostinelli

Main referent for University of Trento students, University of Trento
claudio.agostinelli@unitn.it

F. Marta L. Di Lascio

Main referent for the 2nd School on Programming with R, Free University of Bozen-Bolzano
marta.dilascio@unibz.it

Davide Ferrari

Main referent for the 1st Euregio School in Data Science, Free University of Bozen-Bolzano
davide.ferrari@unibz.it

Angelica Gianfreda

Free University of Bozen-Bolzano
angelica.gianfreda@unibz.it

Pier Luigi Novi Inverardi

University of Trento
pierluigi.noviinverardi@unitn.it

Francesco Ravazzolo

Free University of Bozen-Bolzano
francesco.ravazzolo@unibz.it

Nikolaus Umlauf

Main referent for University of Innsbruck students, University of Innsbruck
nikolaus.umlauf@uibk.ac.at

HOW TO REACH US

Both schools will take place in the Faculty of Economics and Management of the Free University of Bozen-Bolzano (Italy).
Universitätsplatz 1, Piazza Università, 1 — 39100 Bozen-Bolzano, Italy
+39 0471 013 000 — schoolofeconomics@unibz.it
dsrschools19.events.unibz.it

LECTURERS

Ourschoolsfeaturearosterofwell-regarded academicswithastronginternationalprofile in data science and statistics:

Claudio Agostinelli

University of Trento

Matteo Fasiolo

University of Bristol

Davide Ferrari

University of Bolzano

Peter Filzmoser

Vienna University of Technology

Matthew Nunes

University of Bath

Roberta Pappadà

University of Trieste

Matthias Templ

Zurich University of Applied Sciences

Nikolaus Umlauf

University of Innsbruck

Paolo Vidoni

University of Udine