Target Group

This series of Summer schools targets people interested in planning and analyzing, e.g. clinical studies. Basic knowledge in statistics and in using R are assumed and required.

Time and Date

Wednesday 3 July until Saturday 6 July 2019
- Please arrive on Wednesday by 14:30
- Course finishes Saturday by 12:30

Location

Bundesinstitut für Erwachsenenbildung (bifeb)
St.Wolfgang
Bürglstein 1-7
5360 Strobl, Austria

Registration / Waiting List

Please submit your **binding request for registration by 31 March 2019** via email to:

Andrea Baumgartner, **Andrea.Baumgartner@sbg.ac.at**

Please also indicate if you had tried to register for one of the previous Summer Schools in Strobl but could not be admitted because it was booked out.

Cancellation

If you have to cancel, we will try to admit someone from the waiting list. However, if this it not possible, your registration fees cannot be returned.

Registration Fees

Membership in one of the sponsoring societies is mandatory. Please note that some of the societies offer free student membership.

Academic / Government: 370 Euro
Business / Industry: 540 Euro
Student: 240 Euro

Accommodation

Accommodation and food are included in the registration fees. In principle, you may extend the stay at your own expenses and by personal arrangement with bifeb staff if there is room availability.

How to Get There

Please see the description (in German) at
http://www.bifeb.at/ihr-aufenthalt/anreise/

Contact & Information

For questions, please ask

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Andrea.Baumgartner@sbg.ac.at
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Universität Salzburg
Deutsche und Österreich-Schweizer Region der
Internationalen Biometrischen Gesellschaft
(IBS-DR, ROeS)
Österreichische Statistische Gesellschaft (ÖSG)

Summer School 2019

Missing Values, and Estimands

3 – 6 July, 2019
Strobl am Wolfgangsee, Austria

Instructors
Frank Bretz (Basel)
Ursula U. Müller (Texas)
Jun Shao (Wisconsin)
Menggang Yu (Wisconsin)

Complete data sets without any nonresponses or dropouts are great if you have them – but in practice, one usually has to deal with the challenges of missingness in its different forms.

The 2019 Summer School in Strobl sheds light on the topic of missing data from various angles and highlighting different aspects, starting with a review and discussion of the concept of estimands and continuing with methods for parametric models, causal inference, as well as semi- and non-parametric estimation in the presence of missing data. The topics will range from practice-oriented to methodological.

Each of the presenters is an internationally well-known authority on missing data, and there will be plenty of room for informal discussions with the experts.

The optional social program includes a visit to a local award-winning Edelbrand distillery and a barbecue evening.

On site, there are options for various outdoor activities (jogging, football, swimming,…), and participants regularly bring their portable music instruments along for impromptu performance sessions.

Families are welcome (please indicate when making your reservation request), but note that we cannot offer organized child care, and the accommodation charges are of course slightly higher.

Estimands
Frank Bretz, Basel

Estimands are fundamental to the understanding of missing data. The draft E9 addendum defines missing data as data that would be meaningful for the analysis of a given estimand but were not collected. In this part of the course, we review the estimand framework as laid out by the draft ICH E9 addendum and present case studies illustrating the implementation of this framework in clinical practice.

Missing Values in Parametric Models
Jun Shao, Madison, Wisconsin

In this part of the course, we study or review basic concepts for missing values and discuss methodologies to address missingness in linear or parametric models. This may include topics such as weighting and imputation for nonrespondents, longitudinal data with dropouts, and covariates with missing values.

Causal Inference and Missing Data
Menggang Yu, Madison, Wisconsin

This part complements the previous discussion by adding the aspect of causal inference and by presenting different ways to perform inference for missing data using R.

Missing Data in Semiparametric and Nonparametric Estimation
Ursula U. Müller, Texas

Some selected topics from the books „Missing and Modified Data in Nonparametric Estimation: With R Examples" by Efromovich and „Semiparametric Theory and Missing Data" by Tsiatis will be discussed, as well as recent results on optimal (efficient) estimation in semiparametric models with responses missing at random.

Lab Exercises

Some sessions involve hands-on examples using R. Please bring your own laptop, with R / Rstudio installed. We will inform you ahead of time regarding the installation of certain packages.