

ROeS- Nachrichten

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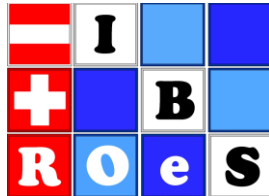
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Welcome Address by the ROeS President

Dear ROeS members and colleagues,

I am greatly honored to write this welcome address for the second consecutive year. I would like to start by sharing with you some thoughts and feelings about the place and possible importance of some statistical concepts in modern life and science.

When reflecting upon the value of what we know in our field, I am often swinging from one extreme to the other. On one day, I feel that the “content” of statistics is actually quite thin compared to the impressive quantity of knowledge gathered by other sciences, such as physics, biology and medicine, among others. But on the following day, I read in the newspaper an article discussing a topical scientific debate, or another subject of general interest, typically about the hopes triggered by artificial intelligence, and I can see statistics everywhere. For example, I read the other day that artificial intelligence will soon be used in Estonia for court decisions! I guess that many statisticians will be afraid of such an evolution. The issue is not only that of being tried by an algorithm rather than by a human, which raised new ethical debates. To my view, the issue is also – and mainly – that the accuracy of these algorithms to make judgments might not be as good as expected, and the trust of the politicians in this regard – and of the society, in general – is often exaggerated. Disappointment and injustice are likely to be immense. By analogy, some soccer fans regret today the use of the Video Assistant Referee, which skewed the World Cup 2018 final (although decisions should be, in principle, much easier to take on a soccer field than in a court).

“Many don’t seem to realize the limited predictability of our world”. These were the words of the eminent psychologist Gerd Gigerenzer, published in 2007 in his book “Gut Feelings: The Intelligence of the Unconscious”, which I recommend the reading. One efficient way to sensitize people against such a dangerous optimism is certainly to generalize the teaching and practice of statistics. It is important to realize and emphasize that the R-squared and Areas Under the Curves obtained in most of our analyses are far from impressive. Unfortunately, such statistics are often underused.

These issues – and many more – will be discussed during the upcoming ROeS conference, “From Controlled Trials to Big Data and Back”, which will take place in Lausanne between 9–12 September. Thanks to the great work of the scientific committee, we have now 13 confirmed invited speakers and 3 keynote speakers: Sander Greenland (University of California), Stephen Senn (Luxembourg Institute of Health) and Stefan Wäger (University of Stanford). On the first day of the conference, Prof. Martin Huber (University of Fribourg) and Prof. Martin Spindler (University of Hamburg) will be teaching two short courses. The former will discuss the foundations of causal analysis, whereas the latter will introduce us to big data. More details regarding the program of the 31st ROeS conference can be found in this issue and via the following website: <http://wp.unil.ch/ibs-roes2019>.

I am very much looking forward to seeing many of you at this occasion. Please do not forget to send your abstracts for an oral or a poster presentation via the website (deadline for abstract submission is May 15). I would also be grateful if you could advertise this event to your colleagues and network. In addition to a great conference, participants will enjoy beautiful landscapes, a couple of glasses of nice wines, and many passionate discussions about statistics, which will in turn open the door to rich debates on all kinds of topics, about and beyond modern life and science.

Lausanne, April 2019

Valentin Rousson

XXXIst ROeS Conference

Lausanne, Switzerland, September 9–12, 2019

Motto

From Controlled Trials to Big Data and Back

One goal will be to discuss and try to determine which is the ideal place and positioning of statistics along an axis going from purely confirmatory to purely exploratory analyses, the former being typically represented by the much regulated clinical trials, the latter by the new world of big data. See more on <http://wp.unil.ch/ibs-roes2019/>.

Program

The event will take place in the buildings of the University of Lausanne.

On the first day, two short courses will take place, mainly but not only addressed to PhD students. The first course will be an introduction to causal analysis, taught by Prof. Martin Huber (University of Fribourg, Switzerland). The second course will be an introduction to big data, taught by Prof. Martin Spindler (University of Hamburg, Germany).

On the next three days, a couple of plenary and (a maximum of two) parallel sessions will take place focused on the following topics:

- Biometrical methods in agriculture, forestry and ecology
- Causal inference in epidemiology
- Innovations in early and late clinical trials
- Multiple testing and adaptive designs
- Reproducibility in biomedical research
- Bayesian analysis
- Evidence synthesis and meta-analysis
- Longitudinal and missing data
- Model selection, prediction and overfitting
- Survival and event history analysis
- Challenges and successes of big data
- Statistical genomics
- Machine learning and artificial intelligence
- Precision medicine and biomarker assessment
- Bridging biostatistics and data science.

In addition, a poster session and the traditional young statistician session will be organized.

Keynote speakers

- Sander Greenland (University of California)
- Stephen Senn (Luxembourg Institute of Health)
- Stefan Waeger (University of Stanford)

Invited speakers

- Jan Beyersmann (University of Ulm)
- Florian Frommlet (Medical University of Vienna)
- Els Goetghebeur (University of Gent)
- Martin Huber (University of Fribourg)
- Marcus Hudec (University of Vienna)
- Rianne Jacobs (University of Groningen)
- Markus Lange (Novartis, Basel)
- Christoph Lippert (University of Postdam)
- Kaspar Rufibach (Roche, Basel)
- Georgia Salanti (University of Berne)
- Martin Spindler (University of Hamburg)
- Maarten van Smeden (University of Leiden)
- Manuela Zucknick (University of Oslo)

Short courses

- An introduction to causal analysis (September 9, morning)

Prof. Martin Huber, University of Fribourg, Switzerland

Abstract: This short course provides an introduction to causal analysis and treatment evaluation. First, it introduces the so-called potential outcome notation along with various definitions of causal effects and highlights fundamental problems in evaluating such effects. Second, it discusses alternative strategies and statistical methods for identifying causal effects of interest. Among the approaches considered are randomized experiments, controlling for observed covariates (i.e. assuming conditional treatment exogeneity), instrumental variable methods, and quasi-experimental designs like difference-in-differences and regression discontinuity designs.

- An Introduction to big data (September 9, afternoon)

Prof. Martin Spindler, University of Hamburg, Germany

Abstract: In the first half of the course, an overview over big data is given, which (technical) challenges they pose and what pitfalls and dangers arise in the analysis of big data. It turns out that one major difficulty of big data remains the high dimensionality of the data compared to the size of the sample, actually a classical issue. An overview of statistical methods for estimation and inference is given in the context of big data. In the second part of the course, we discuss machine learning methods for efficient estimation and inference on treatment effects and structural parameters in big data. In particular the so-called “Double Machine Learning” (DML) approach is introduced which allows for valid post-selection inference even in high-dimensional settings.

Arthur Linder prize

Will be awarded during the conference. The prize is of CHF 3000 and can be distributed between a maximum of two recipients who should be members of ROeS and not older than 35. See <https://www.ibs-roes.org/home-en/arthur-linder-prize/> for more details.

ROeS member assembly

September 10, 2019, 12:30 at the conference venue (University of Lausanne)

Key dates

May 1, 2019: Deadline for submission of candidature for the Arthur Linder Prize

May 15, 2019: Deadline for abstract submission for the conference

June 15, 2019: Notification of abstract acceptance

June 30, 2019: Deadline for early bird registration

September 9-12, 2019: 31st ROeS conference

Registration, abstract submission and further information

<https://wp.unil.ch/ibs-roes2019/>

Todesfall

Fritz Hans Schwarzenbach, 1925–2018

Am 9. Juni 2018 ist unser langjähriges Mitglied Dr. Fritz Hans Schwarzenbach verstorben. F. H. Schwarzenbach nahm bereits 1959 an einer Tagung der damals erst im Entstehen begriffenen ROeS teil und war dann Gründungsmitglied der ROeS. Später übernahm er wichtige Ämter in der ROeS: Von 1970 bis 1975 war er Schatzmeister und 1978/1979 Präsident der ROeS. Ausserdem baute er ab 1976 die ROeS-Nachrichten auf, um den Austausch zwischen den ROeS-Mitgliedern zu fördern, und blieb bis 1987 Redakteur der ROeS-Nachrichten.

Aus den Sektionen und der Arbeitsgruppe

Wiener Biometrische Sektion

Die Wiener Biometrische Sektion bietet traditionell als eine ihrer wesentlichen Aktivitäten den Rahmen für Vorträge im Rahmen des Biometrischen Kolloquiums. Dank des Engagements unsere Kollegen können wir wiederum auf ein Jahr voller interessanter Vorträge von exzellenten internationalen Vortragenden zurückblicken. Die vorgetragenen Themen umfassten unter anderem „Biomarker Selection“, „Initial Data Analysis“ und „Causal Inference“. Darüberhinaus fand im Herbst das dritte gemeinsame Seminar mit der Biometrischen Sektion Steiermark-Kärnten in Wien statt, das mit Unterstützung des EU-Projekts IDEAL organisiert wurde. Im Februar folgten der von der ROeS und der Medizinischen Universität Wien (MUW) organisierte Workshop on Bayesian Clinical Trials und ein WBS-Seminar zum Thema „Update your prior: The power of Bayesian Tools for Research“. Eine detaillierte Auflistung sämtlicher Aktivitäten ist auf der Homepage www.meduniwien.ac.at/wbs/ zu finden. Harald Herkner und Susanne Strohmaier (beide MUW) haben die Funktion des Präsidenten bzw. der Sekretärin übernommen und bedanken sich sehr herzlich bei Stephan Lehr für die Unterstützung in der Übergangsphase.

Harald Herkner und Susanne Strohmaier

Veranstaltungshinweise / Events

5th Summer School of Universität Salzburg, IBS-DR, IBS-ROeS and ÖSG Missing Values and Estimands

Strobl on Lake Wolfgangsee, July 3–6, 2019

Presenters: Frank Bretz (Basel), Jun Shao and Menggang Yu (Wisconsin), and Ursula Müller (Texas)

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ISCB40 – 40th Annual Conference of the International Society for Clinical Biostatistics

Leuven, Belgium, July 14–18, 2019

<https://kuleuvencongres.be/iscb40>

XXX International Biometric Conference (IBC 2020)

Seoul, Korea, July 5–10, 2020

Joint Meeting of the Central European Network of the IBS and the GMDS

Berlin, September 6–11, 2020

XXXI International Biometric Conference (IBC 2022)

Riga, Latvia, July 2022

XXXIst Conference of the Austro-Swiss Region
[ROeS] of the International Biometric Society

Registration & abstract submission:
<https://wp.unil.ch/ibs-roes2019>

From Controlled Trials to Big Data and Back

Lausanne, Switzerland, September 9-12, 2019

