



Basel Biometric Society Webinar

# Controlling the chances of false discoveries in exploratory analysis of clinical trials

Thursday, August 29, 2024

Organizers: Kostas Sechidis, Frank Bretz, Bibiana Blatna

Introduction: Dominic Magirr

# 509 registered participants

...as of Tuesday, 27<sup>th</sup> August

Background*	N
Statistics	464
Clinical	44
Epidemiology	42
Health Economics	20
Regulatory	10
Other	36

\*select all that apply

Country	n
Switzerland	143
United States	128
Germany	65
United Kingdom	52
India	30
France	12
Belgium	11
China	7
Italy	6
Austria	5
Japan	5
Sweden	5
Denmark	4
Greece	4
Spain	4
Canada	3
Morocco	2
Netherlands	2
Pakistan	2
Singapore	2
Albania	1
Chile	1
Finland	1
Gambia, The	1
Iceland	1
Ireland	1
Israel	1
Korea, South	1
Malawi	1
Nigeria	1
Norway	1
Portugal	1
Serbia and Montenegro	1
South Africa	1
Taiwan	1
Turkey	1
Uganda	1

# Housekeeping

- **The event will be recorded**
- **Presentations and recording will be made available**
- **Please mute yourself unless you are speaking**
- **Q&A**
  - At the end of each presentation, we will have time for questions
  - Please enter your questions into the **chat** during a presentation, or raise your hand during Q&A
- **In case of problems during the event, contact [Bibiana.Blatna@novartis.com](mailto:Bibiana.Blatna@novartis.com)**

# Setting the scene

<https://baselbiometrics.github.io/home/docs/>

The screenshot shows the Basel Biometrics website. The navigation menu is purple and contains the following items: 'Basel Biometrics ...', 'About BBS', 'Upcoming events', 'Past seminars', 'Past trainings' (highlighted with a red box), 'Additional documents', and 'Updates on this page'. Below the navigation menu, the main content area is white and features the title '29.03.2022: Graphical approaches to multiple test problems'. Underneath the title are links for 'Program', 'Recording', and 'Recording 2'. A table with four columns (Speaker, Institution, Title, Download slides) lists the speakers and their presentations. On the right side, there is a 'On this page' section with a list of links to other training days.

Speaker	Institution	Title	Download slides
Marc Vandemeulebroecke	Novartis, Basel	Welcome	No presentation available
Ekkehard Glimm, Frank Bretz & Dong Xi	Novartis & Gilead	Graphical approaches to multiple test problems	<a href="#">link</a>

# Controlling the chances of false discoveries in exploratory analysis of clinical trials

14.00-14.15	<b>Welcome remarks and setting the scene</b>	Dominic Magirr (Novartis, BBS board member) and Frank Bretz (Novartis)
<b>Part 1: Controlled variable selection</b>		
14.15-14.40	<b>Using knockoffs for type-I error controlled prognostic and predictive variable selection</b>	Kostas Sechidis (Novartis)
14.40-15.05	<b>Statistical Interpretation of High-Dimensional Prediction Models using Conditional Permutation Importance</b>	Denis Engemann (Roche)
15.05-15.30	<b>Controlled Discovery and Localization of Signals via Bayesian Linear Programming</b>	Asher Spector (Stanford University)
15.30-15.45	<b>Break</b>	
<b>Part 2: Controlled subgroup discovery</b>		
15.45-16.10	<b>Overview of modern approaches for identifying and evaluating heterogeneous treatment effects from clinical trials</b>	Ilya Lipkovich (Eli Lilly)
16.10-16.35	<b>Subgroup selection with strong type-I error control under monotonicity constraints</b>	Manuel M. Müller (University of Cambridge)
16.35-17.00	<b>Interactive identification of individuals with positive treatment effect while controlling false discoveries</b>	Aaditya Ramdas (Carnegie Mellon University)

**Thank you**

