

HOW to REGISTER

Two steps:

1) fill in the application form on the website:
<http://www.summerschoolbicocca.com/statisticalps2018.php>;

2) upon acceptance, proceed to payment.

Registration will be effective ONLY when step 2 is completed.

Please note that the maximum number of participants is 30. Applications will be considered in order of submission.

Eight places will be reserved to PhD students that provide a letter of the supervisor in step 1. The University of Milano-Bicocca might provide one scholarship for participation of a PhD student. To apply, please, upload your CV and a short letter (max 200 words) describing your PhD project and how it relates to the topic of the course by **15 April**.

**DEADLINE for REGISTRATION is
31 May 2018**

FEE

Registration fee will be inclusive of teaching material, bus transfer, hotel accommodation and meals (from dinner of the 9th to the breakfast of the 14th September).

| | |
|----------------------|--------|
| General participant: | 1400 € |
| PhD student: | 1100 € |
| IBS/SISMEC member | 1300 € |

HOW to PAY

By credit card and bank transfer, after acceptance. Please follow the information on the acceptance letter.

REGISTRATION CANCELLATION

It must be submitted to the secretariat by July 31, 2018 to receive a refund, less a 50 Euro processing fee. Refunds will not be granted after July 31.

ECTS/CREDITS

The course will provide 2 ECTS credits.

OBJECTIVES of the COURSE

The overall aim of this course is to present approaches to statistical design and analysis that enable researchers to design more efficient epidemiological studies and to better utilize available data from well-defined cohorts (such as those deriving from national health registers, electronic medical records or clinical studies).

The course will compare and contrast different sampling designs and the various parameter estimates they can yield by careful "reconstruction" of the underlying cohort or extensions to the regression models used.

In particular, the course will show how variations of the case-control design can produce efficient and unbiased estimates of the hazard ratio and other quantities, and how the concepts of matching from classical epidemiological studies can be extended to studies of continuous outcomes.

The course will demonstrate the application of these methods in designing studies to make efficient use of costly data and to conduct more flexible and informative analysis.

COORDINATORS

Maria Grazia Valsecchi

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SECRETARIAT

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UNIVERSITY OF MILANO-BICOCCA
SCHOOL OF MEDICINE AND SURGERY
Center of Biostatistics for
Clinical Epidemiology



Statistic Alps
Summer course on medical
statistics.....in the Alps
8th Edition

EXTENDED USE OF REGRESSION MODELS FOR NEW EPIDEMIOLOGIC DESIGNS AND ANALYSES

Prof. Marie Reilly

Karolinska Institutet, Dept. of Medical Epidemiology
and Biostatistics, Stockholm, Sweden

Prof. Chuen Seng Tan

Saw Swee Hock School of Public Health, National
University of Singapore, Singapore

BICOCCA SUMMER SCHOOL
PhD in PUBLIC HEALTH

9 – 13 September 2018

PONTE DI LEGNO – BRESCIA, ITALY

With the endorsement of



Società Italiana di Statistica Medica
ed Epidemiologia Clinica



International Biometric Society



PROGRAM

9 SEPTEMBER 2018

- 19.30 Registration
20.00 Welcome Dinner

1ST DAY – 10 SEPTEMBER 2018

- 9.00:13.00 - Measures of disease occurrence and risk: revision.
- Risk estimates from different sampling strategies from the same underlying cohort: comparison and interpretation.
- Regression models: Logistic, Poisson, Cox
- 14.30:16.00 - Adjustment for confounding: standardisation of rates, adjustment/stratification, matched designs
- 16.30:18.30 - Weighted likelihood: incomplete/2-stage case-control data; optimal 2-stage designs.
- Secondary analysis of case-control data.

2ND DAY – 11 SEPTEMBER 2018

- 9.00:13.00 - Nested case-control data: reusing; breaking the matching; estimating absolute risk.
- Case-cohort designs.
- Tutorial: implementation in standard software.
- 14.30:16.00 - Extreme designs (counter-matching, extreme outcome).
- 16.30:18.30 - RO-logit models: confounder adjustment; applications; residual diagnostics; handling ties.

3RD DAY – 12 SEPTEMBER 2018

- 8.30:12.30 - Estimation of relative risk, excess relative risk, NNT, and other risk measures from standard case-control data; more general risk models.
- Extensions to sampling designs: clustered data, longitudinal data, quasi-cohort, exposure enriched sampling, multiple outcomes.

4TH DAY – 13 SEPTEMBER 2018

- 9.00:12.30 Tutorial:
- Development of study plan or analysis plan with peer feedback.
- 14.00:16.00 - Presentations and final discussion.
- 19.30 Course closure – Social Dinner

14 SEPTEMBER 2018

- 8.30 Departure from Hotel

TUTORIALS:

Lectures will be interspersed with tutorials consisting of exercises, “journal club” sessions and workshops.

In the workshops, participants may (i) develop and refine a study design to address a clinical/epidemiological research question or (ii) implement some method(s) on their own data in a supervised laboratory session.

PREREQUISITES

Knowledge of epidemiologic designs, logistic regression and survival analysis

TUTORS

Davide Bernasconi
Center of Biostatistics for Clinical Epidemiology –
School of Medicine and Surgery- University of Milano-Bicocca

Yilin Ning
NUS Graduate School of Integrative Sciences and
Engineering & Department of Surgery, School of
Medicine - National University of Singapore

Elena Raffetti
Public Health Epidemiology - Karolinska Institute

Participants will have the possibility to:

- Enjoy summer sports in the surrounding
 - Spend time for individual study during the half day break.
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COURSE VENUE

Hotel Mirella ****
Via Roma 21, Ponte di Legno (BS)
Tel: +39.0364.900500 - Fax: +39.0364.900530
<http://www.hotelmirella.it>

COURSE WEB PAGE

<http://www.summerschoolbicocca.com/statisticalps2018.php>