Swiss Epidemiology Winter School 2023

LONDON
SCHOOL of
HYGIENE
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MEDICINE

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UNIVERSITÄT
BERN

Advanced Methods in Climate Change Epidemiology

16–18 January 2023

Faculty	**Dr. Ana M. Vicedo-Cabrera, PhD** Institute of Social and Preventive Medicine (ISPM), University of Bern, Switzerland **Prof. Antonio Gasparrini** London School of Hygiene and Tropical Medicine, United Kingdom
Venue	**CH – 3823 Wengen | SWITZERLAND** Hotel Sunstar (map)
Course description	Climate change is the defining public health challenge of the century. The assessment of its health impacts at different geographical and temporal scales, and the identification of the potential mechanisms and the main vulnerable populations are key priorities in today's epidemiological research. During the last years, novel approaches in environmental epidemiology have emerged, boosted by the urgency to provide reliable scientific evidence to protect populations from climate change. These new techniques combine advanced statistical methods and epidemiological designs, new data sources and interdisciplinary methods to address increasingly complex research questions. This course aims to provide a comprehensive, hands-on, up-to-date overview of the latest developments in environmental epidemiology applied to climate change research. In particular, the course will cover the state-of-the-art study designs such as multi-location time series analyses and small-area assements, advanced methodologies such as distributed lag models and GIS data linkage, and applications such as health impact projection studies and health attribution analysis. The course will provide fully documented material on the statistical and epidemiological bases with small lectures, real-data demos, and the corresponding R code.
Course objectives	By the end of this course, participants will have acquired knowledge on: • the latest developments in epidemiological methods in climate change research, including time series analysis, distributed-lag non-linear models and health impact assessments. • their application in epidemiological assessments of climate-sensitive health outcomes, and in specific settings including projection of health impacts under climate change scenarios or attribution of health impacts to climate change.

Course audience	PhD students, early career, or advanced researchers in the areas of epidemiology, public health, or climate modelling. Basic knowledge of R and regression modelling is expected.
Course outline	The course runs over three days and consists of short lectures, computer demos, and practical sessions with real-data analysis.

Monday, 16 January   *8:00 am – 12:00 pm | 4:30 pm – 6:30 pm*

Tuesday, 17 January   *8:00 am – 12:00 pm | 4:30 pm – 6:30 pm*

Wednesday, 18 January   *8:00 am – 12:00 pm | 1:00 pm – 3:00 pm*

Credits	1.0 ECTS
Course materials	Students should bring their own portable computers with the latest version of R and RStudio.
Course book	We provide course materials: presentation slides, documents illustrating demos, and R script and data.
Course fee	PhD Bern Students: CHF 350
	PhD Students: CHF 700
	Academic: CHF 900
	Industry: CHF 2000
Registration	Register on the Winter School website. Pre-Registration starts 29 August 2022 at 12:00 pm (CET).
Accomodation	Book your accommodation separately. Please see recommendations for special prices.