Invitation

 The Bayesian Weighted

 Quantile Sum Regression

Thursday 5th of September 2019 3:00 p.m.

CII Building 1st Floor Irinis 95, 3041 Limassol



Cyprus International Institute for Environmental and Public Health The Cyprus International Institute of Environmental and Public Health of Cyprus University of Technology invites you to the lecture on:

The Bayesian Weighted Quantile Sum Regression



Speaker: Elena Colicino

Bio: Dr. Colicino is an assistant professor in the Department of Environmental Medicine and Public Health at the Icahn School of Medicine at Mount Sinai. She works on methods development for environmental health data and her main research focuses on assessing the effects of environmental exposures on human diseases throughout the life course. She is now extending her research portfolio with Bayesian approaches.

Abstract: Biomonitoring studies clearly demonstrate that humans are exposed to complex patterns of environmental chemicals – some of which may act through related pathways (e.g., the endocrine system), thereby increasing the likelihood of a "mixture effect" from multiple chemicals. Statistical methods and study designs for analyzing the complex, often high-dimensional data that arise in environmental health research are relatively new and require knowledge of advanced statistical techniques. Weighted Quantile Sum (WQS) Regression has been extensively applied in environmental health studies to assess both the mixture effect and the driving factors in mixtures. Dr. Colicino will present the WQS regression under a novel Bayesian framework, overcoming limitations of the classical approach. She will present how this extension avoids a priori selection of the directionality of the mixture effect and she will also touch upon the inclusion of biological information in the model.

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