PIPGES · WEBINARS

JUN · 11 2021

02:00 PM

The link will be available on the day of the event at:

https://tiny.one/armero-c

Interinstitutional Graduate Program in Statistics (PIPGES) of Federal University of São Carlos with University of São Paulo promotes seminars groups (temporarily webinars, due to pandemic issues) of researches involving Probability, Statistics, Machine Learning etc. Our interest, among other things, is to stimulate the sharing of knowledge, as well as the connection between members of the program and researchers in other institutions.

Organizer

Michel H. Montoril, Department of Statistics, Federal University of São Carlos.

BAYESIAN INFERENCE FOR COMPETING RISKS AND MULTI-STATE SURVIVAL MODELS

Survival analysis focus on data that record times from a defined starting point to the occurrence of a particular event or endpoint of interest. Competing risk models are survival models that include more than one event of interest where the occurrence of one event rules out the occurrence of all the others. Multi-state models are more general survival models that account for survival times involved in the pathways associated to the sequential occurrence of many events of interest.

We discuss Bayesian analysis of such models in the context of medical research. We begin by working with a basic competing risks model in which the time to a new hip fracture or to death is modelled for patients aged 65 or older who have already had a first hip fracture, then we introduce a competing risks model for taking into account non-ignorable missing data in a longitudinal analysis of chronic kidney disease in children, and conclude with a discussion of the so-called illness and death multi-state models by returning to the hip fracture study.

SPEAKER

Carmen Armero · Universitat de València

BIO

Carmen Armero is Professor of Statistics and Operations Research at the Universitat de València (Spain), and Biomathematics and Statistics Scotland (BioSS) Associate. Her research has always been focused on Bayesian Inference, first on queueing systems and later on Bayesian hierarchical models in biomedical environments, mainly in the areas of survival and longitudinal models. She has published papers in prestigious international journals such as Statistics in Medicine, Statistical Methods in Medical Research, Queueing Systems, Health Economics, Journal of Computational and Graphical Statistics, Biometrical Journal, among others. She is Director of the València Bayesian Research group, VABAR (http://vabar.es/), of the València-VABAR node of the Biostatnet network (https://biostatnet.com/en/), and of the València International Bayesian Analysis Summer School (VIBASS).