PIPGES · WEBINARS

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JOINT ANALYSIS OF OVERALL SURVIVAL AND DISEASE-FREE TIMES BASED ON COPULA: AN APPLICATION TO BREAST CANCER

This study was motivated by a study involving female patients with breast cancer, conducted at the Portuguese Institute of Oncology in Lisbon. The work goal is to evaluate the relationship between overall survival time and disease-free time through copula functions, considering marginal Weibull survival distributions. The clinical stage of patients and DNA ploidia are considered statistically relevant for both survival times. Regarding the age of patients, its effect is only relevant to the overall survival time of older patients. The risk of a recurrence of cancer or death, given the clinical characteristics of the patient, is different for the univariate and bivariate models. In addition, the estimation of the copulation parameter demonstrates a high association between the times under study. This is a joint work with Beatriz Lourenço.

SPEAKER
Giovani Silva · University of Lisbon

The video call link will be available at:

https://tiny.one/silva-g

BIO
Giovani Loiola da Silva is Assistant Professor at the Department of Mathematics at Instituto Superior Técnico (IST) and member of the Center for Statistics and Applications (CEAUL), both at the University of Lisbon. Graduated in Statistics from the Federal University of Ceará - Brazil, Master in Statistics from IME, University of São Paulo, PhD in Mathematics from IST, Technical University of Lisbon and completed a post-doctoral internship in Statistics at Simon Fraser University - Canada. He has taught several undergraduate and graduate disciplines at Brazilian institutions (e.g., Federal University of São Carlos) and at IST. He has published several scientific papers, namely on the topics of Survival Analysis, Spatiotemporal Models, Generalized Linear Models, Generalized Additive Models, Computational Statistics and Bayesian Statistics. He is the co-author of three books on Generalized Linear Models, Spatiotemporal Models for Multistate Rates, Proportions and Processes, and Bayesian Statistics, respectively.

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,
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