Conferencia Santaló 20/21

La Facultad de Ciencias Matemáticas y la Revista Matemática Complutense organizan anualmente la Conferencia Santaló, en memoria de Luis Santaló (1911-2001), doctor por esta universidad. La conferencia es impartida cada año por un/a profesor/a de reconocido prestigio. La conferenciante de este curso es:

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On spatio-temporal confounding in areal models with a data analysis on gender-based violence

Assessing associations between a response of interest and a set of covariates in spatial areal models is the leitmotiv of ecological regression. However, the presence of spatially correlated random effects can mask or even bias estimates of such associations due to confounding effects if they are not carefully handled. Though potentially harmful, confounding issues have often been ignored in practice leading to wrong conclusions about the underlying associations between the response and the covariates. In spatio-temporal areal models, the temporal dimension may emerge as a new source of confounding, and the problem may be even worse.

In this work, we propose two approaches to deal with confounding of fixed effects by spatial and temporal random effects, while obtaining good model predictions. In particular, restricted regression and an apparently, though in fact not, equivalent procedure using constraints are proposed within both fully Bayes and empirical Bayes approaches. The methods are compared in terms of fixed-effect estimates and model selection criteria.

Viernes, 25 de junio de 2021, 12:00 h AULA MIGUEL DE GUZMÁN, FACULTAD CC. MATEMÁTICAS Canal YouTube de la Facultad de CC. Matemáticas

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