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Special Issue "In Memory of Pilar Loreto Iglesias Zuazola"

A message from the guest editors

Prof. Pilar Iglesias (Pilar) was a remarkable human being. A tireless worker, she was an incredible source of energy. Our friend was always generating new ideas. She could produce –simultaneously– proposals for papers, research projects, meetings, courses, theses, trips, meals and parties. Most impressively, Pilar was also able to find the way to get many of us involved in these initiatives. This happened not only because her ideas were good and feasible, but also due to the enthusiasm, happiness and charm that she always showed when talking about the future.

Even though Pilar passed away at a very early age, her academic career was fruitful and full of success. Again, most of these achievements were result of collective endeavours where academic collaboration was enriched with a strong feeling of friendship.

Thus, when the Editor of the Chilean Journal of Statistics invited us to serve as Guest Editors for this special issue in memory of Pilar, we accepted immediately. We feel that this collective work is a good example of the type of activities that Pilar used to promote. We would like to express our gratitude to the authors who accepted our invitation to contribute to this volume. Their dedication and seriousness, as well as a strict refereeing process, guarantee that our readers will enjoy a valuable collection of papers. Thanks to Ernesto, Fabrizio, Frederico, Fernando, Filidor, Heleno, Ignacio, Jeanne, Jorge, Luis, Manuel, Paola, Reinaldo and Rosangela for their work.

Seven papers are included in this issue. Arellano-Valle, Bolfarine, Iglesias and Viviani introduce a robust version of the Capital Asset Pricing Model, a basic structure for portfolio selection, using a multivariate measurement error model where the errors follow a non-normal distribution. They illustrate their results with an application to the Chilean stock market. Vidal and Castro discuss the idea of quantifying the influence of a subset of observations in a measurement error model with independent Student-t errors. To this end, they introduce several influence measures which can be computed via simulation. In passing, they also discuss some identifiability issues. Quintana introduces and compares two alternatives to the usual robust parametric regression model. Both proposals follow a semiparametric approach and rely on a dependent skew Dirichlet process. Their relative merits are illustrated with some real data examples. Ruggeri establishes the theoretical basis for a new approach to Bayesian robustness. He assumes that the sampling distribution is described by a Dirichlet process and robustness regarding a quantity of interest is investigated when the functional parameter of the process varies across a class of distributions. The ideas of Bayesian identifiability and parameter sufficiency, among other related issues, are explored by San Martin and González. A number of examples are discussed in the setting of a fully discrete Bayesian model, and on that basis some controversial issues are discussed. Loschi, Pontel and Cruz consider the problem of multiple change points in a linear regression model and use a product partition model to describe the prior probability

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on the location of the change points. In addition, a modification of the original algorithm devised to obtain the posterior distribution for the change points is proposed. The resulting approach is illustrated with several real data sets. Galea and Vilca generalize the problem of testing that the means and covariance matrices of two normal distributions are equal by assuming that the underlying distribution is elliptical and then testing the equality of the corresponding location vectors and scale matrices. The approach is non-Bayesian and the authors investigate the performance of some test statistics which have been proposed for the normal case, under the elliptical assumption.

Finally, we are deeply indebted to our Editor, Víctor Leiva, and to the team of the Chilean Journal of Statistics, who provided us with the guidance, support and encouragement to accomplish this enjoyable task which, we hope, will be received with a smile of satisfaction by our dear friend, Pilar.

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