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Aims

The Chilean Journal of Statistics (ChJS) is an official publication of the Chilean Statistical Society (www.soche.cl). The ChJS takes the place of Revista de la Sociedad Chilena de Estadística, which was published from 1984 to 2000.

The ChJS covers a broad range of topics in statistics, as well as in artificial intelligence, big data, data science, and machine learning, focused mainly on research articles. However, review, survey, and teaching papers, as well as material for statistical discussion, could be also published exceptionally. Each paper published in the ChJS must consider, in addition to its theoretical and/or methodological novelty, simulations for validating its novel theoretical and/or methodological proposal, as well as an illustration/application with real data.

The ChJS editorial board plans to publish one volume per year, with two issues in each volume. On some occasions, certain events or topics may be published in one or more special issues prepared by a guest editor.

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<u>Thirteenth Volume – First Issue</u> Editorial Paper

Chilean Journal of Statistics: Thirty eight years generating quality knowledge

CAROLINA MARCHANT¹ and VÍCTOR LEIVA²

¹Faculty of Basic Sciences, Universidad Católica del Maule, Talca, Chile
²School of Industrial Engineering, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile

Welcome to the first issue of the thirteenth volume of the Chilean Journal of Statistics (ChJS), published on 28 April 2022. The ChJS celebrates 38 years of life during very difficult times due, on the one hand, to the COVID-19 pandemic, which is still present, and, on the other hand, to diverse conflicts around the world. Statistical scientific research provides relevant information in decision making in different phenomena and national and international events that affect us. For example, in the COVID-19 pandemic has permitted the governments to establish regulations stopping its spread.

The scientific and editorial production of this volume would not have been achieved without the valuable contributions of many people. We are pleased to inform the international community that outstanding researchers have honored us by publishing their interesting work in our journal. We are publishing articles written by colleagues from Algeria, Australia, Brazil, Chile, Colombia, France, India, and Spain. We also thank all the anonymous reviewers who have contributed to maintaining ChJS' high-quality standards. Furthermore, we feel obliged and pleased to thank our prestigious editorial board listed in http://soche.cl/chjs/board.html. Of course, we must also thank the President and the Board of Directors of the Chilean Statistics Society (listed in https://soche.cl/quienes-somos) and the entire Chilean statistical community for placing on us, the Editors-In-Chief of the ChJS, their confidence in our work.

The first issue of the thirteenth volume of the ChJS comprises six articles as follows:

- (i) In our first paper, María Dueñas and Ramón Giraldo, from Colombia, explored ordinary kriging for functional data based on Andrews curves as an alternative to the classical multivariate approach.
- (ii) The second paper is authored by Ernesto San Martín and Eduardo Alarcón-Bustamante from Chile, which carry out a dissection of three Chilean surveys.
- (iii) In the third paper, an analysis about Bayesian detection of change in the parameters of an autoregressive process of known order was proposed by Abdeldjalil Slama from Algeria.
- (iv) The fourth paper is authored by Christophe Chesneau, Muhammed Rasheed Irshad, Damodaran Santhamani Shibu, Soman Latha Nitin and Radhakumari Maya from France and India, who proposed a new version of the two-parameter log-normal distribution with applications to astronomy and cancer data.
- (v) In the fifth paper, Lucas D. Ribeiro-Reis, Gauss M. Cordeiro, and José J. de Santana e Silva, from Brazil, derived a new bimodal distribution named the Mc-Donald Chen model.

(vi) The sixth and last paper is authored by Emilio Gómez-Déniz, Enrique Calderín-Ojeda, and José María Sarabia, from Australia and Spain, which explored the arctan family of distributions and provided three numerical applications related to insurance.

As the Chilean Statistics Society, we are proud because we continue to provide, by means of the ChJS, an open-access forum, publishing high-quality works free of any article processing charges (APC). In addition, we are indexed to the Elsevier Scopus and Clarivate ISI WoS systems. We are very motivated because, at the beginning of 2022, we received 30 submissions from different countries.

Finally, we would like the international statistical and data-science communities, our editorial board, and our collaborators, to champion the ChJS as a long-lived, international, free of charges, and open-access forum, with fair and high-quality reviews. We encourage the international scientific community to submit their works to the ChJS.

Víctor Leiva and Carolina Marchant Editors-in-Chief Chilean Journal of Statistics http://soche.cl/chjs

Information for authors

The editorial board of the Chilean Journal of Statistics (ChJS) is seeking papers, which will be refereed. We encourage the authors to submit a PDF electronic version of the manuscript in a free format to the Editors-in-Chief of the ChJS (E-mail: chilean.journal.of.statistics@gmail.com). Submitted manuscripts must be written in English and contain the name and affiliation of each author followed by a leading abstract and keywords. The authors must include a "cover letter" presenting their manuscript and mentioning: "We confirm that this manuscript has been read and approved by all named authors. In addition, we declare that the manuscript is original and it is not being published or submitted for publication elsewhere".

PREPARATION OF ACCEPTED MANUSCRIPTS

Manuscripts accepted in the ChJS must be prepared in Latex using the ChJS format. The Latex template and ChJS class files for preparation of accepted manuscripts are available at http://soche.cl/chjs/files/ChJS.zip. Such as its submitted version, manuscripts accepted in the ChJS must be written in English and contain the name and affiliation of each author, followed by a leading abstract and keywords, but now mathematics subject classification (primary and secondary) are required. AMS classification is available at http://www.ams.org/mathscinet/msc/. Sections must be numbered 1, 2, etc., where Section 1 is the introduction part. References must be collected at the end of the manuscript in alphabetical order as in the following examples:

Arellano-Valle, R., 1994. Elliptical Distributions: Properties, Inference and Applications in Regression Models. Unpublished Ph.D. Thesis. Department of Statistics, University of São Paulo, Brazil.

Cook, R.D., 1997. Local influence. In Kotz, S., Read, C.B., and Banks, D.L. (Eds.), Encyclopedia of Statistical Sciences, Vol. 1., Wiley, New York, pp. 380-385.

Rukhin, A.L., 2009. Identities for negative moments of quadratic forms in normal variables. Statistics and Probability Letters, 79, 1004-1007.

Stein, M.L., 1999. Statistical Interpolation of Spatial Data: Some Theory for Kriging. Springer, New York.

Tsay, R.S., Peña, D., and Pankratz, A.E., 2000. Outliers in multivariate time series. Biometrika, 87, 789-804.

References in the text must be given by the author's name and year of publication, e.g., Gelfand and Smith (1990). In the case of more than two authors, the citation must be written as Tsay et al. (2000).

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