

## Editorial of Special Issue on Biometry

This Special Issue on Biometry arose from the III Portuguese-Galician Meeting of Biometry (**EBio2018**), jointly organized by the Portuguese Statistical Society (SPE) - Biometry Section - and by the Galician Society for the Advancement of Statistics and Operations Research (SGAPEIO), and hosted by the University of Aveiro (Portugal), which took place from 28 to 30 June 2018.

**EBio2018** was preceded by I Portuguese-Galician Meeting of Biometry, I Portuguese-Galician Meeting on Ecological and Environmental Statistics and II Galician-Portuguese Meeting of Biometry with applications to the Health Sciences, Ecology and Environmental Sciences, held in Braga (2013), Vila Real (2014) and Santiago de Compostela (2016), respectively. These meetings aim, namely, to expand the field of action of both societies to new circles of the biometry community, and to promote the exchange and to intensify the relationships within each community and between the statistical communities.

According to the International Biometric Society, “The term **Biometrics/Biometry** has been used since early in the 20th century to refer to the field of development of statistical and mathematical methods applicable to data analysis problems in the biological sciences. Statistical methods for the analysis of data from agricultural field experiments to compare the yields of different varieties of wheat, for the analysis of data from human clinical trials evaluating the relative effectiveness of competing therapies for disease, or for the analysis of data from environmental studies on the effects of air or water pollution on the appearance of human disease in a region or country are all examples of problems that would fall under the umbrella of **Biometrics/Biometry** as the term has been historically used”.

Based on the increasing importance of the areas mentioned in the above definition, we decided to challenge **EBio2018** participants to submit their contributed papers to REVSTAT - Statistical Journal - for a Special Issue on Biometry. We intended to promote the dissemination of the latest advances in the development and application of statistical and mathematical methods in Biology, Medicine, Ecology, Psychology, Pharmacology, Agriculture, Environment and other Health and Life Sciences.

After a peer-review process, six manuscripts were accepted for publication in this issue covering the following topics: i) Model risks of extreme events in population dynamics, ii) Peaks over threshold methods to estimate extreme quantiles and probabilities related to hypertension pathology, iii) Assessing extreme value conditions motivated by two real environmental problems, iv) Parameters estimation of HIV dynamic models, v) Accuracy measures for binary classification in the selection of the optimal cut-point, vi) Joint modelling of longitudinal and competing risks clinical data.

Finally, we (guest editors) would like to thank all authors for their contributions and all the anonymous reviewers who helped to prepare this special issue. Furthermore, we are grateful to the past and current Editors-in-Chief of REVSTAT - Statistical Journal - for agreeing to publish this special issue, as well as to all members of the scientific and organizing committees who worked to make **EBio2018** a very interesting event on the field of Statistical Models in Biometry.

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