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Preface

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Preface

This Special Issue on Demography contains 6 invited articles presented at the 5th Stochastic Modelling Techniques and Data Analysis International Conference (SMTDA2018) and especially at the Demographic 2018 Workshop (Chania, Crete, Greece, June 12–15, 2018). The Demographic Workshop invited articles, both theoretical and practical, presenting new results having potential for solving real-life problems. An important objective was to select articles presenting new methods for solving these problems by analyzing relevant data and leading to the advancement of the related fields.

The following articles have been selected for this Special Issue:

In “The Transition in Health in a Population Aged 65 Years and Over in Europe,” Justyna Majewska and Grazyna Trzpiot use an approach called the general theory of aging of the population and confirm a cyclical movement of health transition process. Life expectancy and health-adjusted life expectancy are used in order to study the stages of health transition.

Apostolos Papachristos and Georgia Verropoulou, in their paper “Subjective Survival: An Assessment of Accuracy According to Individual Social Profile” identify traits that relate to the underestimation or the overestimation of survival, using information from an especially rich dataset, the Survey of Health Ageing and Retirement in Europe (SHARE wave 6, 2015) and the Human Mortality Database.

Emmanouil-Nektarios Kalligeris, Alex Karagrigoriou, and Christina Papoula present a modeling method in “On Mixed PARMA Modeling of Epidemiological Time Series Data.” The derived results are satisfactory since the selected model succeeds in identifying the epidemic waves, and in estimating accurately the influenza-like syndrome morbidity burden in the case of Greece (for the period 2014–2016).

Kimon Ntotsis, Marianna Papamichail, Peter Hatzopoulos, and Alex Karagrigoriou, in their paper “On the Modeling of Pension Expenditures in Europe.” They proceed to locate, collect and analyze the factors which either on short-term or on long-term may have an impact on the shaping of Pension Expenditures.


Georgios Bartzis and Sotirios Bersimis present a “Performance Comparisons of Bivariate Dispersion Control Charts” and compare some well-known multivariate control charts for the dispersion of normally distributed processes, under several scenarios.

Dalkhat M. Ediev presents in his paper “On the Sources of Instability of the Mitra Model for Years of Life at Old-age” an interesting approach both from the analysis applied and the handling of material supported by detailed bibliography.

We thank all the authors for their contributions and the reviewers for their sincere and timely work. Our special thanks to the Editor-in-Chief, Professor Narayanaswamy Balakrishnan, for accepting this Special Issue and the Editorial Assistant, Debbie Iscoe, for her valuable support.

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