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Nicola Salvati Cira Perna Stefano Marchetti Raymond Chambers *Editors*

Studies in Theoretical and Applied Statistics

SIS 2021, Pisa, Italy, June 21–25





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Nicola Salvati · Cira Perna · Stefano Marchetti · Raymond Chambers
Editors

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Preface

This book gathers selected peer-reviewed papers presented during the 50th Scientific Meeting of the Italian Statistical Society (SIS2021). Due to the Covid-19 pandemic, which limited the mobility of the staff of many universities and research centres, SIS2021 was conducted remotely from the 21st to the 25th of June 2021.

This biennial conference is a traditional meeting for promoting interactions among national and international researchers in statistics, demography, and applied statistics in Italy. The aim of the conference is to bring together national and foreign researchers and practitioners to discuss recent developments in theoretical and applied statistics as well as in demography and statistics for the social sciences.

The Scientific Program Committee and the Organizing Committee of SIS2021 put together a balanced and stimulating program which was of great interest to all participants.

The conference program included 4 plenary sessions, 15 specialized sessions, 20 solicited sessions, 37 contributed sessions, and the poster exhibition. The meeting also hosted three Satellite Events on 'Measuring uncertainty in key official economic statistics', 'Covid-19: the urgent call for a unified statistical and demographic challenge', and 'Evento SIS-PLS Statistica in classe: verso un insegnamento laboratoriale'. There were 323 submissions accepted by the Scientific Program Committee, including 128 that were presented at invited plenary, specialized and solicited sessions, and 195 that were submitted as contributed papers for oral presentation and for the poster sessions.

This book of selected papers from those presented at SIS2021 covers a wide variety of subjects and provides an overview of the current state of Italian scientific research in theoretical and applied statistics. The papers contained in this book cover areas that include Bayesian models, survey methods, time series models, spatial models, finance models, clustering methods, and new methods and applications to Covid-19.

The Scientific Program Committee, the Organizing Committee, and many volunteers contributed to the organization of SIS2021 and to the refereeing of the papers included in this book. Our heartfelt thanks go to all of them. A special thank you goes to Francesco Schirripa Spagnolo for his continuous assistance and support in

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the organization of the conference and in the editing of this book. Wishing you a productive and stimulating reading experience.

Pisa, Italy Salerno, Italy Pisa, Italy Wollongong, Australia Nicola Salvati Cira Perna Stefano Marchetti Raymond Chambers

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