

Preface

An AMS Special Session in honor of M.M. Rao was held at the 2019 Fall Western Sectional Meeting held at the University of California, Riverside, November 9–10. That Special Session, titled “Celebrating M.M. Rao’s many mathematical contributions as he turns 90 years old” was organized by Professor Jerome Goldstein, University of Memphis and California State Polytechnic University, Pomona Professors Michael Green, Alan Krinik, Randall Swift and Jennifer Switkes.

Professor M.M. Rao has had a long and distinguished research career. His research spans the areas of probability, statistics, stochastic processes, Banach space theory, measure theory and differential equations - both deterministic and stochastic. The purpose of the Special Session was to celebrate a lifetime of mathematical achievement and highlight the key role played by abstract analysis in simplifying and solving fundamental problems in stochastic theory.

The Sessions were a wonderful success, bringing together a diverse group of research mathematicians whose work has been influenced by M.M.’s work and, in turn, have influenced his work. Several of his UC Riverside colleagues attended the talks and several spoke. Four of his former students also spoke. The Sessions were engaging with lively discussions and questions from the Session audience.

This volume contains a collection of these talks given at the Sessions and begins with Professor Rao’s talk, “Stochastic Equations”. We have included images of the slides that he used. Here, we hope to record the incredible passion and energy he has for mathematics. His unbounded enthusiasm is clear in the photos and the love he has for his students shown in his talk.

This volume also includes a biography of M.M. Rao, a complete bibliography of his published writings and a list of his Ph.D. students. This collection complements the two Festschrift volumes *Stochastic Processes and Functional Analysis* (1996) and *Stochastic Processes and Functional Analysis: Recent Advances* (2004), that were published to honor his 65th and 75th birthdays. We dedicate this collection, to honor his 90th birthday, in celebration of a mathematical life.

R. J. Swift
A.C. Krinik
J.M. Switkes
J. H. Park