PREFACE

On the eve of his retirement, the "Conference on Stochastic Processes and Applications" was held at Wayne State University in April 2019, in honor of Professor Pao-Liu (Paul) Chow to celebrate his distinguished career, his substantial achievement of research on stochastic analysis, stochastic processes, and stochastic partial differential equations. He also made significant contributions to the mathematics department at Wayne State University and to the mathematics community. At the conclusion of the conference, there was a consensus to put together a commemorative volume. As a result, this special issue comes into being.

This issue collects selected invited addresses at the conference, as well as several additional contributions from Professor Chow's colleagues, long-term collaborators, friends, and former students. The papers touch upon a spectrum of research areas that are related to the problems that Professor Chow has worked on and made contributions of. All papers were refereed.

Paul completed his Ph.D. degree in applied mathematics in 1967 from Rensselaer Polytechnic Institute (RPI). Right after defending his Ph.D. dissertation, he was appointed as an assistant professor of mathematics at RPI in 1967. Then in the same year, he was appointed as an assistant professor of mathematics at New York University (NYU) and joined Applied Mathematics Division of the Courant Institute of Mathematical Sciences and worked with Joseph Keller. In 1972, he moved to Michigan and joined the Department of Mathematics at Wayne State University (WSU).

In his early career, his study was devoted to wave propagation, multiple scattering, and wave in random media, which was mainly influenced by Joseph Keller's work on scattering and applied mathematics problems. After he moved to NYU, he got interested in stochastic systems, under the influence of Henry McKean and M. D. Donsker. During a period of time, Hui-Hsiung Kuo gave a series of lectures on infinite dimensional functional analytic methods for stochastic processes on the seminar organized by Donsker, which promoted Paul's later interests in studying stochastic partial differential equations.

His work on stochastic partial differential equations has been well recognized by leading experts in the fields. During his tenure at Wayne State University, he has been invited globally for a wide variety of events on stochastic processes, infinite dimensional systems, stochastic partial differential equations, and applications. The communications and interchanges with G. Da Prato led to a number of his invited addresses on "International Conference on Stochastic Partial Differential Equations and Applications" held in Italy. His research visits to Mannheim University led to joint research work and collaborations with J. Potthoff and other colleagues there. He was also invited to deliver lectures at the Issac Newton Institute of Mathematical Sciences at the University of Cambridge, and invited to give a series of lectures on stochastic partial differential equations at a number of

institutions. He published extensively and his work has been well cited by numerous researchers. His book on stochastic partial differential equations published in 2007 was one of the first books in this area. Being very well received, it has been a classical reference in this field. Because of its popularity, the revised version of the book was published in 2015.

Not only has he established himself as an excellent researcher and a leading expert in the fields, but also he has been instrumental to building the mathematics department at WSU. During his affiliation with WSU over 47 years, he has put much effort on mentoring and nurturing young researchers and students, and on building the applied mathematics program. He served as the Department Chair at WSU from 1990-1995. Under his leadership, the department has been much improved in a multitude of fronts in research, teaching, and graduate student training.

We congratulate Professor Pao-Liu Chow on reaching this mile stone. In view of his distinguished career, his substantial achievement, his significant contributions to the field of stochastic processes and stochastic partial differential equations, and his tireless effort of building the department, we dedicate this special issue to him.

Without the help and assistance of many people, this project could not be completed. To begin, we thank the Institute for Mathematics and Its Applications at the University of Minnesota and the Academy of Scholars at Wayne State University for providing us with the support of the conference. We thank the invited speakers, the poster presenters, the attendees, and the student helpers of the conference. We also thank the contributors of the papers in this volume and the reviewers of the papers for making this a memorable event.

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Baton Rouge and Detroit