

# Preface

A four-day conference, “Markov Processes and Related Topics,” was held at the University of Wisconsin–Madison July 10–13, 2006, in celebration of Tom Kurtz’s 65th birthday and his many contributions to mathematics. Speakers were invited to submit a paper to this collection, and after a lengthy refereeing and editing process, the present “Festschrift” volume has emerged. Its diversity of topics is a reflection of the wide range of subjects to which Tom has contributed.

Tom Kurtz was born in Kansas City on July 14, 1941. He graduated from La Plata High School in La Plata, Missouri, in 1959, earned a B.A. degree from the University of Missouri in 1963, and completed his Ph.D. in mathematics at Stanford University in 1967 under the supervision of James McGregor. That same year he began his career at the University of Wisconsin–Madison, where he remained through his retirement in 2008. He became Professor of Mathematics in 1975, Professor of Statistics in 1985, and Paul Lévy Professor of Mathematics and Statistics in 1996. Over the course of his career, he served his profession in numerous capacities, including Director of the Center for the Mathematical Sciences (1990–1996), Editor of the *Annals of Probability* (2000–2002), and President of the Institute of Mathematical Statistics (2005–2006). He organized the Summer Intern Program in Probability for nearly a decade; this program had a significant impact on the next generation of probabilists.

Tom has published some 90 papers (with 46 distinct coauthors), two books, and two sets of lecture notes, and he has had 26 Ph.D. students. A complete list is provided beginning on page ix. Topics to which Tom has contributed include

- operator semigroup theory: 2, 4, 9, 12, 15, 19, 21, 22, 25, 36.
- theory of Markov processes: 13, 33, 44, 67.
- limit theorems for Markov processes: 3, 6, 7, 8, 10, 18, 20, 23, 29, 31, 32, 34, 35, 37, 45, 46, 50, 51, 60, 85.
- stochastic equations: 28, 49, 59, 73, 82, 83, 87, 91.
- filtering: 38, 39, 43, 77.
- stochastic control: 42, 47, 68, 75, 79.
- queueing theory: 58, 61, 64, 66, 70, 86.
- branching processes: 5, 14, 24, 65, 90.
- point processes: 17, 88.
- population genetics models: 30, 41, 48, 53, 55, 57, 62, 63, 69, 74, 76, 80, 81.
- other population processes: 56, 71, 72, 84, 89.
- miscellaneous probability theory: 11, 16, 26, 27.
- analysis of algorithms: 40, 52, 54, 78.
- fluid mechanics: 1.

The conference was sponsored by the National Science Foundation, the National Security Agency, the U.S. Army Research Office, the Office of Naval Research, the UW–Madison Departments of Mathematics and Statistics, the UW–Milwaukee Department of Mathematical Sciences, and the Institute of Mathematical Statistics. We are grateful for their help in making the conference, and therefore this volume, possible.

July, 2008

Stewart N. Ethier  
Jin Feng  
Richard H. Stockbridge