Annals of Operations Research (2024) 340:1
https://doi.org/10.1007/s10479-024-06212-0

PREFACE

Reliability and statistical computing

Hoang Pham[1]

Published online: 19 August 2024

We're living in an era of fast and unpredictable change. Billions of people are connected to each other through their mobile devices and the Internet of Everything (IoE). Data is being collected and processed like never before. The era of AI, driven by reliable statistical machine computing as well as intelligent systems, has brought about a dramatic shift in almost all applications and the service industry over the past two decades, leading to what is known as Industry 5.0. The forces driving this change are still at play and will continue. Most of the products that affect our daily lives are becoming even more complex than ever.

This volume on *Reliability and Statistical Computing* consists of 28 outstanding papers that address various research challenges in reliability and statistical computing, consisting theoretical aspects, modeling, and application-related areas, including network reliability, replacement policies, machine learning optimization methods, software reliability, deep learning, dynamic travel time prediction, statistical distributions, acceptance sampling plans, digital twin for Industry 4.0, redundancy optimization, sampling inspection, fuzzy testing modeling, system resilience, stochastic debugging process modeling, and maintenance optimization.

Special thanks are due to the Editor-in-Chief, Dr. Endre Boros, for his support and encouragement; to the reviewers for their valuable comments that help to further improve the quality of the papers; and to authors of all submitted papers to this volume.

✉ Hoang Pham
hoang84pham@gmail.com

[1] Rutgers, The State University of New Jersey, New Brunswick, USA