

## PC Chairs' Preface

It is our great pleasure to introduce the proceedings of the 21st Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2017).

We received a record-breaking number of 458 submissions from 36 countries all over the world. This highest number of submissions is very encouraging because it reflects the improving status of PAKDD. To rigorously review the submissions, we conducted a double-blind review following the tradition of PAKDD and constructed the largest ever committee consisting of 38 Senior Program Committee (SPC) members and 196 Program Committee (PC) members. Each valid submission was reviewed by three PC members and meta-reviewed by one SPC member who also led the discussion with the PC members. We, the PC co-chairs, considered the recommendations from the SPC members and looked into each submission as well as its reviews to make the final decisions. Borderline papers were thoroughly discussed by us before final decisions were made.

As a result, 129 out of 458 papers were accepted, yielding an acceptance rate of 28.2%. Among them, 45 papers were selected as long-presentation papers, and 84 papers were selected as regular-presentation papers. Mining social networks or graph data was the most popular topic in the accepted papers. The review process was supported by the Microsoft CMT system. During the three main conference days, these 129 papers were presented in 23 research sessions. A long-presentation paper was given 25 minutes for presentation, and a regular-presentation paper was given 15 minutes for presentation. These two types of papers, however, are not distinguished in the proceedings.

We would like to thank all SPC members, PC members, and external reviewers for their hard work to provide us with thoughtful and comprehensive reviews and recommendations. Also, we would like to express our sincere thanks to Yang-Sae Moon for compiling all accepted papers and for working with the Springer team to produce the proceedings.

We hope that the readers of the proceedings find the content interesting and rewarding.

April 2017

Longbing Cao  
Jae-Gil Lee  
Xuemin Lin

## General Chairs' Preface

Welcome to the proceedings of the 21st Pacific-Asia Conference on Knowledge Discovery and Data Mining. PAKDD has successfully brought together researchers and developers since 1997, with the purpose of identifying challenging problems facing the development of advanced knowledge discovery. After 14 years since PAKDD 2003 in Seoul, PAKDD was held again in Korea, during May 23–26, 2017, in Jeju Island.

We are very grateful to the many authors who submitted their work to the PAKDD 2017 technical program. The technical program was enhanced by three keynote speeches, delivered by Sang Cha from Seoul National University, Rakesh Agrawal from Data Insights Laboratories, and Dacheng Tao from the University of Sydney. In addition to the main technical program, the offerings of this conference were further enriched by three tutorials as well as four international workshops on leading-edge topics.

We would like to acknowledge the key contributions by Program Committee co-chairs, Longbing Cao, Jae-Gil Lee, and Xuemin Lin. We would like to extend our gratitude to the workshop co-chairs, U. Kang, Ee-Peng Lim, and Jeffrey Xu Yu; the tutorial co-chairs, Dongwon Lee, Yasushi Sakurai, and Hwanjo Yu; the contest co-chairs, Nitesh Chawla, Younghoon Kim, and Young-Koo Lee; the publicity co-chairs, Sang-Won Lee, Guoliang Li, Steven Whang, and Xiaofang Zhou; the registration co-chairs, Min-Soo Kim and Wookey Lee; the local Arrangements co-chairs, Joonho Kwon, Jun-Ki Min, Chan Jung Park, and Young-Ho Park; the Web chair, Ha-Joo Song; the finance co-chairs, Jaewoo Kang and Jaesoo Yoo; the treasury chair, Chulyun Kim; and the proceedings chair, Yang-Sae Moon. We would like to express our special thanks to our honorary chair, Kyu-Young Whang, for providing valuable advice on all aspects of the conference's organization.

We are grateful to our sponsors that include: platinum sponsors — Asian Office of Aerospace Research & Development/Air Force Office of Scientific Research, Mirhenge, Naver, NCSOFT, Seoul National University Big Data Institute and SK Holdings C&C; gold sponsors — KISTI (Korea Institute of Science and Technology Information); silver sponsors — Daumsoft, Douzone, HiBrainNet, Korea Data Agency, and SK Telecom; and publication sponsors — Springer for their generous and valuable support. We are also thankful to the PAKDD Steering Committee for its guidance and Best Paper Award, Student Travel Award, and Early Career Research Award sponsorship. In addition, we would like to express our gratitude to the KIISE Database Society of Korea for hosting this conference. Finally, we thank the student volunteers and everyone who helped us in organizing PAKDD 2017.

April 2017

Jinho Kim  
Kyuseok Shim

Advances in Knowledge Discovery and Data Mining  
21st Pacific-Asia Conference, PAKDD 2017, Jeju, South  
Korea, May 23-26, 2017, Proceedings, Part II

Kim, J.; Shim, K.; Cao, L.; Lee, J.-G.; Lin, X.; Moon, Y.-S.  
(Eds.)

2017, XXXII, 857 p. 252 illus., Softcover

ISBN: 978-3-319-57528-5