



10th International Conference on Teaching Statistics

“Looking back, looking forward”

Kyoto, Japan, 8–13 July 2018

Website: icots.info/10



Welcome from the IASE President

It is my pleasure to welcome all delegates to the Tenth International Conference on Teaching Statistics (ICOTS10), July 8-13, 2018, Kyoto, Japan. The International Conferences on Teaching Statistics (ICOTS) are held every four years at different locations around the world (see <https://iase-web.org/Conferences.php> for past meetings). An ICOTS is organized by the International Association for Statistical Education (IASE), which is a section of the International Statistical Institute (ISI).

IASE seeks to promote, support and improve the teaching, learning, understanding, and use of statistics and probability at all educational levels and contexts around the world. The mission of IASE is to foster international cooperation and stimulate discussion and research related to statistics and probability education and to disseminate ideas, strategies, research findings, and educational resources using publications, conferences, and its website: <http://iase-web.org>. The major objectives of ICOTS are to provide the opportunity for statistics educators and practitioners from all over the world to exchange information, experiences and knowledge about the learning and teaching of statistics and to expand the network of statistics educators and enable them to work together to find ways to improve statistics education in their respective countries.

ICOTS10 is organized around the theme “Looking Back, Looking Forward”, chosen to remind us of our growing historical roots as well as new horizons ahead in statistics education. By embracing and shaping these new horizons, we ‘look forward’ to defining and redefining our traditions and emerging directions. The digital revolution of the last few decades has made statistical thinking and reasoning a necessity in today’s world, a world awash with data that come in many different forms such as pictures, dynamic images and sounds as well as numbers and more traditional graphs. Analyzing those data is crucial to nearly every aspect of society including business, industry, social welfare and government. The explosion of data has led to “big data” and the emerging need for increased attention to making sense of data as an integral part of many career options.

Understanding and making sense of data can be used to move our countries forward in areas such as health and human services, education and dealing with environmental issues. Decision making in the past often relied on subjective judgments. As we move forward, however, we should strive to ensure that in each of our countries, policy decisions related to political and social issues and the well being of citizens are informed by analytical and data-driven processes. To make this happen, the ability and inclination of learners, teachers, professionals, and citizens to understand, use, and communicate about statistics and probability needs to be fundamental in educational programs, programs that are informed by research and evidence from practices that show promise for improving statistical teaching and learning.

The ICOTS10 Scientific Program is designed to support these efforts. The Program involves, among other things, five plenary sessions, over 40 Invited Sessions with more than 240

invited talks and panels, close to 115 contributed papers, 70 posters, 9 preconference hands-on workshops and a rich social program. With over 59 countries represented and close to 500 delegates, and with a packed and enticing program, ICOTS10 again lives up to its reputation as the high point in international gatherings on statistics education.

ICOTS10 has been helped by generous support from the Japanese Statistical Society and other sponsors listed in this booklet. Many thanks to everyone who has contributed to the work that went into making ICOTS10 a wonderful and generative conference experience professionally and collegially, including the Topic Convenors, Session Organizers, authors, and referees. We are especially grateful for the dedication and extraordinary efforts of Katie Makar, Chair of the International Program Committee (IPC), and the other members of the IPC, Rob Gould, Sibel Kazak, Michiko Watanabe; John Shanks, Information Manager; Toshinari Kamakura and Kazunori Yamaguchi, Chair and Co-Chair respectively of the Local Organizing Committee (LOC), and the other members of the LOC, Yoshikaza Tamura, Akimichi Takemura, Michiko Watanabe, and to M. Alejandra Sorto the Proceedings Editor and sub-editors Alexander White and Layla Guyot

ICOTS is a time to reunite with friends and colleagues from prior conferences in statistical education and to reach out to make new friends in the community of statistical educators. For the many first-time delegates, a special welcome, and we hope you find ICOTS as enjoyable and stimulating as the veterans have. For everybody, enjoy, learn and grow at ICOTS10. There has never been a more exciting time to be in statistics education!

Gail Burrill
President, International Association for Statistical Education