Message from the ICDE 2018 Chairs

ICDE is IEEE’s TCDE flagship conference, focused on the efficient management of data. Now in its 34th edition, ICDE continues being a premier forum for data management and database researchers, vendors, practitioners, application developers, and users. Data management is an active topic of research in France, an area pioneered by scientists such as Claude Delobel and Georges Gardarin, active members of the international community in their time. This year’s conference in France has the beautiful historic buildings of the Conservatoire National des Arts et Métiers (CNAM, or National Conservatory of Arts and Crafts) as the venue, whose famous alumni include the physicist Sadi Carnot and Louis Pasteur. It is also the home of Foucault’s pendulum, used to demonstrate Earth rotation, and Blériot’s airplane, which in 1909 made the first flight across the channel, from France to England. You’ll have the chance to see these significant innovations during the welcome reception, allowing for a setting that bridges past and future technological advances.

In keeping with the tradition, ICDE 2018 includes keynote addresses and a panel of worldwide renowned researchers from data management and closely related areas. The conference includes an exciting technical program consisting of the presentations of 98 research papers (424 submitted), 15 industrial and application papers (77 submitted), 28 demonstrations (74 submitted), and a selected set of tutorials, workshops and a PhD symposium. To allow the presentation of early-stage innovative ideas, this year we also introduce a "lightning talks" session with 14 talks (out of 23 proposed). Further, honoring the connection between the conference and its sister journal TKDE, there is a TKDE poster track, where authors of TKDE articles published during the last year present their work to the conference participants.

The data management field is witnessing rapid development in many areas, and ICDE offers an opportunity to learn, share, and discuss these advances. To capture this reality, this year’s ICDE has six keynote speakers covering a wide range of topics, from provoking self-examinations to industry-oriented advances: “My Top Ten Fears about the DBMS Field”, “Actor-Oriented Database Systems”, “An NVM Carol: Visions of NVM Past, Present, and Future”, “Human Factors in Data Science”, “Big Data Science in Boundary-less Retail-as-a-Service (RaaS)”, and “Dask: Parallelizing the Python Data Ecosystem with Task Scheduling”. We extend our special appreciation to our keynote speakers Michael Stonebraker (MIT, USA), Philip Bernstein (Microsoft Research, USA), Margo Seltzer (Harvard, USA), Sihem Amer-Yahia (CNRS, University Grenoble Alpes, France), Jian Pei (Simon Fraser University, Canada) and Matthew Rocklin (Anaconda Inc.). We also
extend our special appreciation to C. Mohan for organizing a panel on the interesting and controversial topic “What Is AI 2.0? Is It More than Just Deep Learning?”

Beside the six keynotes and the "lightning talks", one other significant departure from tradition is the adoption of a paper revision phase. Most of the regular research papers, and all of the 47 short ones to be presented as posters, went through a revision followed by a second round of reviewing. The revision phase has helped improve the readability and technical quality of the accepted papers. The 98 regular papers are organized under 24 research sessions, with data mining and analytics, query processing, and spatio-temporal data management constituting the most popular themes. We owe our sincere gratitude to Areas Vice Chairs, members of the Program Committee, and external reviewers who contributed to the assembly of such a high-quality program, working within a tight schedule, especially during the revision phase. Following the initiative of the research track, the industry track also adopted a paper revision phase ending up with 12 regular and 3 short selected papers organized in 3 sessions.

The ICDE 2018 conference would not have been possible without the efforts of a large number of members of our community participating in the Technical Program Committee and the Organization Committee. We would like to extend our deep appreciation to the following Program Committee Chairs for their conscientious work in helping us put together an excellent program: Industry and Application Chairs Gustavo Alonso, Roger Barga and Rajeev Rastogi; Demonstration Chairs Minos Garofalakis, Christopher Re and Chee-Yong Chan; Lightning Talk Chairs Stefan Manegold and Timo Sellis; Panel Chair C. Mohan; Tutorial Chairs Bill Howe and Felix Naumann; Workshop Chairs Stratos Idreos and Tova Milo; PhD Symposium Chairs Alexandra Meliou and Cyrus Shahab; TKDE Posters Chairs Ihab Ilyas and Zoi Kaoudi. We also would like to extend our most sincere gratitude for the outstanding work contributed over many months by the Local Chairs Philippe Rigaux and Cédric Du Mouza, as well as the rest of the Organization Committee: Finance Chair Florent Masseglia; Sponsorship Chairs Xiaoyong Du, Alexandros Labrinidis and Patrick Valduriez; Publicity Chair Katja Hose; Web Master Luis Galárraga; and last but not least Proceedings Chair Vagelis Papalexakis for his conscientious work to organize the proceedings.

We want to thank all authors of submitted papers for their interest in the conference and to the authors of accepted papers for travelling to Paris to share their work with the ICDE community.

Finally, we are grateful to the financial support from the U.S. National Science Foundation and TCDE’s contribution to enable student financial grants, and to all our
sponsors whose support was essential to make this conference possible. We also want to thank the CMT team for their support with the submission site.

We welcome you to ICDE 2018 in Paris and hope you enjoy the conference!

Malu Castellanos, Teradata, USA
Ioana Manolescu, Inria and Ecole Polytechnique, France
ICDE 2018 General Chairs

Panos K. Chrysanthis, University of Pittsburgh, USA
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