

June 12–17, 2022
Philadelphia, PA, USA



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SIGMOD '22

Proceedings of the 2022 International Conference on
Management of Data

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1601 Broadway, 10th Floor
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ISBN: 978-1-4503-9249-5

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Printed in the USA

Welcome to SIGMOD 2022 — The 2022 ACM SIGMOD International Conference on the Management of Data

This year, due to the lift of travel restrictions and the improvement of the Covid-19 pandemic world-wide, SIGMOD is being held in a hybrid format, with a special emphasis on bringing back much-needed face-to-face interactions among our community.

We are excited to host SIGMOD in person again after the past two online editions. We have an excellent technical program with outstanding research, industrial and demonstration track presentations, keynotes, tutorials, panels, and the awards session. Building upon the lessons we learned in the online editions during the pandemic, SIGMOD combined asynchronous and synchronous elements. Every technical talk was pre-recorded and posted for viewing ahead of time. Questions and discussions were handled asynchronously through Slack channels. But in addition, synchronous sessions were held at the conference where presentations were viewed in-person and live-streamed, and the audience and speakers could interact.

This year, we had three categories of papers in the Research Track, (a) Data Management (b) Data Science and (c) Data-centric Applications. Data Science papers focused on data intensive components of data science pipelines, solving problems in areas of interest to the community inspired by real applications. Data-centric applications papers presented novel applications of data management systems in other neighbouring domains beyond Computer Science in order to inspire future research in our community.

In the Research Track this year, we received 514 research submissions (259 for Round 1 and 255 for Round 2), which were extensively reviewed by 191 program committee members, 26 associate editors, and several external reviewers. We accepted 151 submissions (a 29.3% acceptance rate), most of them after a revision phase that gave authors 2 months to revise and resubmit their papers in response to the reviewer comments.

This year, we expanded on the detailed reviewing instructions provided to the reviewers to promote constructive reviewing. Authors were given the opportunity to provide structured feedback directly to the reviewers, associate editors and the program chairs. Furthermore, papers that were selected for revision were given an extra page in their final camera-ready version to allow for more space to address reviewer comments and suggestions.

In addition to the Research Track, the Industrial Track selected 14 papers from 39 submissions; the Demonstration Track selected 22 demonstrations from 53 submissions; the Tutorial Track selected 8 tutorials from 19 submissions and the Student Research Competition selected 13 submissions for the second round of competition. The Programming Contest has 22 student teams competing at the time of writing and more are expected to register before the deadline.

This year, we will have three exciting keynote talks, reflecting emerging topics of great interest to the data management community: “Reflections on a Career in Computer Science” by Barbara Liskov (MIT), “Is Data Management the Beating Heart of AI Systems?” by Chris Ré (Stanford University), “On A Quest for Combating Filter Bubbles and Misinformation” by Laks V. S. Lakshmanan (University of British Columbia).

In addition, we will have two timely and interesting panels: “Publication Culture and Review Processes in the Data Management Community: An Open Discussion” organized by Divesh Srivastava (AT&T Research), and “The DB community vis-a-vis grand challenges related to the environment, health, and society: innovation engine, plumber, or bystander?” organized by Magdalena Balazinska (University of Washington).

Diversity and Inclusion (DnI) is critical to the success of the future of data management research, and SIGMOD has been playing a leading role in this effort as part of the general efforts by the database community in general. SIGMOD 2022 has two co-chairs for Diversity and Inclusion. DnI considerations and analysis were critical throughout the organisation and management of SIGMOD 2022, as well as in the inclusion of several DnI events in the final program. We also have two exciting DnI events in the program: a keynote on “Strategies for Creating Inclusive Learning Environments” by Colleen Lewis (University of Illinois, Urbana-Champaign) and a DnI panel on “Success and Impact Beyond Traditional Metrics.”

Thus, SIGMOD 2022 will feature an exciting and rich program, with 151 research papers, 14 industrial papers, 22 demonstrations, 8 tutorials, 3 keynotes, and 2 panels, together with online social and sponsor events (which are being organized as of the writing of this note). Assembling this program and these proceedings requires an immense amount of effort from numerous people, to whom we are very grateful. We thank the members of the SIGMOD organizing committee and the PC members of the various tracks, as well as the staff and volunteers, for doing an outstanding job and going above and beyond what was required. We have been extremely heartened by the level of dedication and professionalism we have seen in the course of organizing SIGMOD 2022, especially during this “return to normal” time after the pandemic.

We are also very grateful to the SIGMOD Executive Committee, as well as former SIGMOD PC and General Chairs, for helping us navigate many issues and for supporting our new initiatives. We thank ACM and Sheridan, especially Lisa Tolles, for helping us put together the proceedings. We are also deeply appreciative of the support team behind Microsoft’s Conference Management Toolkit, who have always been prompt and helpful in answering our questions. Finally, we are extremely grateful to all of our sponsors and supporters. Your continuing backing for our community and for SIGMOD is deeply appreciated.

Welcome to SIGMOD 2022. We hope you will enjoy the conference – see you in Philadelphia and online!

Zack Ives
General Chair

Angela Bonifati
Amr El Abbadi
Program Chairs

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