

## Editor's Notes

Welcome to the June 2024 issue of the ACM SIGMOD Record!

This issue starts with the Database Principles column presenting an article by Amarilli and Capelli on tractable circuits in database theory. The article discusses the state of the art on designing efficient algorithms for database tasks with the use of tractable circuit representation of Boolean circuits or relations. The authors argue that circuits enable a unifying view of seemingly disparate results, providing a modular and generic way to solve complex tasks. They also show how the circuit perspective can make it possible to design modular algorithms that leverage existing solver implementations. The article discusses existing results and applications, and concludes with an outline of potential directions for further investigation.

The Surveys column features a contribution by Stonebraker and Pavlo that analyzes the last 20 years of data-model and query-language activities in databases. The authors provide commentary on MapReduce systems, key-value stores, document databases, column stores, and text-search engines, as well as on array, vector, and graph databases. The article offers analysis of the state of the art of these and other systems, and concludes with recommendations and predictions on the future of databases.

The Research Articles column presents an article by Kakaraparthi and Patel. The authors consider the problem of fine-grained hardware profiling, that is of profiling that focuses on the execution of desired sections of the code. The article compares and validates three tools for performing fine-grained hardware profiling on Linux platforms, and provides analysis and recommendations that can help systems practitioners choose the right tools for performing fine-grained profiling at different time scales.

The Reminiscences on Influential Papers column features contributions by Matthias Boehm, Matteo Interlandi, Theodoros Rekatsinas, and Madelon Hulsebos.

The Advice to Mid-Career Researchers column presents a contribution by Angela Bonifati, who shares her experiences with and insights on what can be the long and winding road to mid-career academia. The article provides advice on avoiding research stagnation, striking the right balance between teaching and research, handling time management, going beyond one's comfort zone, nurturing research collaborations with other teams, mentoring and being mentored, continuous education, working on impactful things and, last but not least, the importance of enjoying what you are doing.

The DBrainstorming column, whose goal is to discuss new and potentially controversial ideas that might be of interest and benefit to the research community, features an article by Hui Li. In the article, the author considers challenges and opportunities in technology-enabled database education, with a motivation to encourage development of learner-friendly technological support in the task of learning various core components of database systems. The article describes the author's efforts and experiences in this space, and outlines research opportunities in technology-enabled database education.

The Reports column features three contributions. The first article, by Bikakis and colleagues, presents the outcomes of six years of organizing the International Workshop on Big Data Visual Exploration and Analytics (BigVis). The workshop has been held annually since 2018 in conjunction with the International Conference on Extending Database Technology (EDBT), providing opportunities for

researchers in data management and mining, information visualization, and human-computer interaction to revisit traditional problems and solutions in their areas for BigVis purposes. The article summarizes six years of organizing the BigVis workshops, discussing the challenges and presenting the main findings and outcomes.

The second contribution to the Reports column, by Kondylakis and colleagues, reports on the outcomes of the Fifth International Workshop on Health Data Management in the Era of AI (HeDAI), which was co-organized with the EDBT 2023 conference in Ioannina, Greece. The aim of the workshop was to bring together a diverse group of researchers and practitioners interested in developing next-generation solutions for challenging problems in healthcare systems. The article reports on the topics discussed during the workshop, and presents key observations and emerging research directions in this space.

The third contribution to the Reports column, by Amer-Yahia and colleagues, summarizes the 2023 activities of the Diversity, Equity and Inclusion (DEI) initiative, which started as the Diversity/Inclusion initiative in 2020. The article provides a report on the 2023 DEI@DB conferences, discusses the issues of undeclared COIs and PC diversity, and outlines plans going forward.

The issue closes with an Open Forum column, which presents an article by Bhowmick and Hose. The authors share their experiences with, and the results of, installing a novel data-driven PC-chair-in-the-loop PC formation framework for EDBT 2023, with the goal of mitigating some of the challenges brought by traditional PC-formation methods.

On behalf of the SIGMOD Record Editorial board, I hope that you enjoy reading the June 2024 issue of the SIGMOD Record!

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