

Editor's Notes

Welcome to the December 2022 issue of the ACM SIGMOD Record!

This issue starts with the Database Principles column featuring an article by Ketsman, Koch, Neven, and Vandervoort. The article provides an introduction to concurrency control for database theorists, with a focus on the notion of robustness that allows one to achieve transaction serializability at lower concurrency-control costs. The authors introduce the theory of robustness, present transaction programs and templates, highlight recent results in the area, and outline open problems.

The Surveys column presents an article by Schlegel and Sattler. The article discusses system support for machine-learning (ML) artifact management as an essential building block to achieve comparability, reproducibility, and traceability of artifacts created and used within the ML lifecycle. Using criteria that enable systematic assessment of artifact-management systems, the authors assess more than 60 systems and platforms from academia and industry that support the management of ML lifecycle artifacts. The article presents the assessment results and findings.

The Systems and Prototypes column features an article by Benedikt, Cooper, Germano, Gyorkei, Tsamoura, Moore, and Ortiz. In the context of reasoning-based query planning, which has been studied in relational data integration, the Semantic Web, and query reformulation, the authors overview PDQ 2.0, a platform whose goal is to provide infrastructure support for reasoning-based optimization in the relational realm.

The Reminiscences on Influential Papers column features contributions by Tilmann Rabl, Avrielia Floratou, Arun Kumar, and Danica Porobic.

The Advice to Mid-Career Researchers column presents a contribution by Laks V.S. Lakshmanan entitled "Mid-Career Researcher, huh? What just Changed?". The article shares advice to newly minted associate professors on choosing a research strategy for the new career span, on supervising students and mentoring junior colleagues, on selecting service with impact, and on ways to expose graduate students and postdocs to new and exciting opportunities.

The article featured in the Future of Data(base) Education column is contributed by Aivaloglou, Fletcher, Liut, and Miedema, organizers of the very successful first international workshop on Data Systems Education: Bridging Education Practice with Education Research (DataEd'22), which was held in conjunction with SIGMOD '22. The article summarizes the workshop's main results, observations, and emerging research directions.

The DBrainstorming column, whose goal is to discuss new and potentially controversial ideas that might be of interest and potentially of benefit to the research community, presents in this issue an article by Pike that considers the problem of managing data and code versions, in collaborative data science and beyond. The author articulates the goal of developing approaches that consider both code and data in version merging, and lists key challenges addressing which would move us closer to addressing this goal.

The Distinguished Profiles column features an interview with Chenggang Wu, co-founder and CTO of Aqueduct and recipient of the 2022 ACM SIGMOD Jim Gray dissertation award for his thesis entitled "The Design of Any-Scale Serverless Infrastructure with Rich Consistency Guarantees." Chenggang's PhD is from UC Berkeley. In the interview, Chenggang discusses his thesis and the challenges that he

had to address in the dissertation work, explains how the thesis ideas and solutions have led to the founding of the Aqueduct company, and shares advice for today's graduate students.

The Industry Perspectives column presents an article by Tian that provides the research community with an industrial perspective on the graph-database landscape. The information provided in the article can help graph researchers better understand the industry trends and challenges faced by the industry, thus inviting solutions that would help address the problems.

The article by Perscheid, Plattner, Ritter, Schlosser, and Teusner featured in the Research Centers column presents the Enterprise Platform and Integration Concepts (EPIC) research center at the Hasso Plattner Institute (HPI) at the University of Potsdam. Research at EPIC focuses on next-generation database management and enterprise software, with the goals of maximizing performance and of improving cost efficiency and business value. The article motivates the research topics pursued at the EPIC center, highlights the key contributions, and outlines collaboration activities across the projects.

The issue closes with an article by Bhowmick in the Reports column. The author presents issues related to the emergence of dense co-authorship networks formed by conference review-board members, and advocates for rethinking the traditional way review are formed, with the goal of mitigating the issues.

On behalf of the SIGMOD Record Editorial board, I hope that you enjoy reading the December 2022 issue of the SIGMOD Record!

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