

Editor's Notes

Welcome to the December 2018 issue of the ACM SIGMOD Record!

This issue starts with the Database Principles column featuring an article on graph queries by Bonifati and Dumbrava. The article provides an overview of topics in graph processing, focusing on graph-query language fragments that are both tractable from the complexity standpoint and practically relevant. The authors summarize complexity results for graph-query evaluation and containment for a variety of language fragments, and outline foundations for an evaluation and incremental view maintenance engine for one such fragment, regular queries. Other topics discussed in the column include approaches to evaluating complex regular path queries, namely approximate query evaluation and path query learning. The column also outlines challenges encountered in the work on query benchmarking and log analysis, thus inviting the readers to participate in new lines of research.

The Distinguished Profiles column features Andrew Chien, Professor at the University of Chicago, previously vice president/director of Intel Research. Andrew is an ACM Fellow, an IEEE Fellow, and a Fellow of the American Association for the Advancement of Science. In this interview, Andrew shares his experience and vision concerning a range of challenges in emerging and future computational systems. He notes that the SIGMOD community is uniquely positioned to address such challenges, because its researchers have thought of computation and data in an integrated form. He then outlines major trends and directions that SIGMOD researchers may be interested in. Andrew also gives advice for fledgling and mid-career database researchers, and shares his desire to explore and experiment with the exciting new systems produced by the community and industry.

The Centers column features an article by Abedjan, Breß, Markl, Rabl, and Soto on data-management systems research at TU Berlin, Germany. The research is advanced with several groups and encompasses a wide range of topics discussed in detail in the article, including scalable data processing, modern hardware, benchmarking, and data integration. The authors also discuss funding support for the group, research translation into products and systems, and ways in which the research group has supported the database community.

The Reports Column features two articles. The first article is the SIGMOD 2018 Program Committee Chair's Report by Philip Bernstein. The report provides detailed information about the submissions, the reviewing process, decisions on revisions and acceptance, and the conference program, including notes on changes from previous years. Bernstein also shares observations and thoughts on the reviewing quality, and provides detailed recommendations on producing good reviews. Historical notes in the article cover Bernstein's experience and contributions as PC Chair for SIGMOD 1979 and VLDB 2002. The article concludes with a remark on how the conference reviewing process could be improved, and with acknowledgments to the SIGMOD 2018 PC members and vice chairs. The second article in the Reports Column reports on the proceedings of the First International Workshop on Incremental Recomputation: Provenance and Beyond (IRPb). The goal of the workshop was to explore the breadth and depth of the recomputation problem, with specific emphasis on the role of provenance in the area. The workshop topics were characterized using the categories of recomputation, incremental computation, approximate computation, and provenance. The contributions also covered a variety of application domains. The report summarizes the contributions and provides a pointer to the abstracts and presentations.

On behalf of the SIGMOD Record Editorial board, I hope that you enjoy reading the December 2018 issue of the SIGMOD Record!

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December 2018

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