Guest Editorial

Special issue on database theory

This issue of the JCSS contains seven invited papers on database theory. The papers are representative of the latest and most promising research on advancing the state of the art in data management. The following process was used. First, eight papers were carefully selected from among the best research projects published in the top data management conferences during the first half of 2005 (the International Conference on Database Theory, the Symposium on Database Theory, and the Workshop on Database Programming Languages). Their authors were contacted and asked to extend their work and submit a journal paper for this special issue. All submissions went through a thorough peer review process. At the end of the review seven papers were considered to be of the highest quality and accepted for publication in this special issue.

This collection of papers cover several areas in data management, ranging from the traditional to the very novel: traditional database theory (extensions of the relational algebra, and applications of magic sets), XML processing (normalization theory and automata theory), inconsistent data, data synchronization, and ranking.

I thank the authors for agreeing to contribute and all anonymous reviewers, who worked hard to ensure the high quality of this special issue.

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