



Distinguished Lecture Series

Can We Trust SQL as a Data Analytics Tool?



Thursday, November 29th, 2018 10:00am
Auditorium 106,
Institute of Information Science, Academia Sinica

Prof. Leonid Libkin

Abstract

Multiple surveys show that SQL and relational databases remain the most common tools used by data scientists. But can we fully trust them? We give a few examples showing unexpected and counterintuitive behavior of even simple SQL queries that make one question analytics results obtained from relational DBMSs. The talk will then give a quick overview of two lines of work that attempt to overcome these problems. One concerns a formal semantics of SQL, to at least eliminate the element of surprise in query results. The other presents a revised evaluation scheme that restores correctness to the notoriously unpredictable behavior of SQL queries over databases with incomplete information.

Biography

Leonid Libkin is Professor of Foundations of Data Management in the School of Informatics at the University of Edinburgh. He was previously a Professor at the University of Toronto and a member of research staff at Bell Laboratories in Murray Hill. He received his PhD from the University of Pennsylvania in 1994. His main research interests are in the areas of data management and applications of logic in computer science. He has written five books and over 200 technical papers. His awards include a Royal Society Wolfson Research Merit Award, a Marie Curie Chair Award, and six Best Paper Awards. He has chaired programme committees of major database conferences (ACM PODS, ICDDT) and was the conference chair of the 2010 Federated Logic Conference. He has given many invited conference talks and has served on multiple program committees and editorial boards. He is an ACM fellow, a fellow of the Royal Society of Edinburgh, and a member of Academia Europaea.

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