

SCS Keynote Speaker

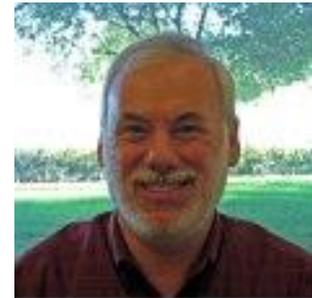


TITLE: Information Management and Simulation: Innovation at the Interface

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ABSTRACT:

Over the past few years, the synergy between information management and simulation has been steadily increasing. This talk will outline some interesting developments at the intersection of these two fields, based on the speaker's work at IBM Research as well as the work of others. Tentative topics include: native simulation support within a database, exploiting information-integration technology for composite simulation, running SQL database queries as part of simulation execution, merging simulated and sensor data, and the use of probabilistic databases for robust simulation.



SHORT BIO:

Peter J. Haas is a Principal Research Staff Member at the IBM Almaden Research Center where, since 1987, he has worked at the interface of information management, applied probability, statistics, and computer simulation. He is an IBM Master Inventor and his ideas have been incorporated into products including IBM's DB2 database system. He is also a Consulting Professor in the Department of Management Science and Engineering at Stanford University, teaching and conducting research in stochastic modeling and simulation. He was President of the INFORMS Simulation Society from 2010 to 2012 and, in 2003, received its Outstanding Simulation Publication Award for his monograph on stochastic Petri nets. He is an ACM Fellow and has received a number of awards for his work on sampling-based exploration of massive datasets (ACM SIGMOD 10-Year Best Paper Award), the Splash platform for collaborative modeling and simulation, techniques for massive-scale matrix completion (2015 IBM Research Outstanding Innovation Award), Monte Carlo methods for scalable querying and machine learning over massive uncertain data, automated relationship discovery in databases, and query optimization methods. He serves on the editorial boards of Operations Research and ACM TOMACS, and was an Associate Editor for the VLDB Journal from 2007 to 2013. He is the author of roughly 150 conference publications, journal articles, and books.