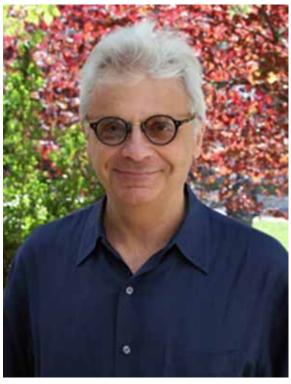# UC San Diego News Center

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Déjà Vu: UC San Diego Computer Scientist Passes the Test of Time… Again

For the second time in five years, CSE Prof. Victor Vianu is the recipient of the ACM PODS Alberto O. Mendelzon Test-of-Time Award. The annual award goes to the author or co-authors of a paper published in the proceedings of the Principles of Database Systems (PODS) ten years earlier. The award goes to the paper that had "the most impact in terms of research, methodology, or transfer to practice over the intervening decade." After winning the Test-of-Time Award in 2010, Vianu will be honored at the 2015 SIGMOD PODS conference in Australia, when he accepts another Test-of-Time Award.

The 2015 award will cite Vianu's influential 2005 paper, titled "Views and Queries: Determinacy and Rewriting." The paper explores a scenario that is not uncommon in query processing, security and privacy, data integration and query pricing. "The paper considers a seemingly simple question,"

Computer Science and Engineering professor Victor Vianu will pick up his second Test-of-Time Award at the SIGMOD PODS 2015 conference in Melbourne, Australia in early June.

explains Vianu, who will share the award with co-author Luc Segoufin the Universite de Paris Sud. "Suppose you know the answer to a query Q on a database and you wish to answer another query R. Does Q provide enough information to answer R? If so, how can the answer to R be obtained from Q?" According to Vianu, the problem turned out to be unexpectedly challenging even for the simplest queries used in relational database systems, and some of the basic questions raised in 2005 remain open today.

[Editor's Note: Vianu is not the first CSE professor to receive two test-of-time awards from the same conference. For two years in a row, the International Symposium on Computer Architecture (ISCA) gave its Influential Paper Award in 2010 and 2011 to simultaneous multithreading-related papers by Dean Tullsen and colleagues 15 years earlier. The papers originally appeared in ISCA proceedings for 1995 and 1996.]

There is little doubt that Vianu's paper from ten years ago had an out-sized impact in the research arena. "This first paper spawned a whole line of follow-up research on this and related problems," says Vianu, noting that this year's Best Student Paper award at the 18th International Conference on Database Theory (ICDT) contributed to the same line of research (and cited Vianu's 10-year-old paper). "I think our paper received the award because the questions it raised were novel and widely relevant, and some of the answers it provided challenged conventional wisdom by going against widely accepted 'folklore' assumptions."

(The Best Student Paper Award at ICDT 2015 will be awarded this March to "Asymptotic Determinacy of Path Queries using Union-of-Paths Views," by Nadime Francis, a graduate student at France's École Normale Supérieure de Cachan. Francis is also a collaborator with Vianu's co-author, Luc Segoufin.)

In 2010 Vianu and his co-authors Dan Suciu and Tova Milo won the Mendelzon Test-of-Time Award for their work a decade earlier on type-checking for XML transformation languages Vianu's paper studied the problem of checking whether or not an XML transformation is well-typed—which would be essential for manipulating XML documents. The paper proved that typechecking for k-pebble transducers is decidable and, consequently, it could be performed for a broad range of XML transformation languages.

Victor Vianu received his Ph.D. in Computer Science from the University of Southern California in 1983 and joined UC San Diego in 1984. Aside from UCSD, he has taught at the Ecole Normale Superieure and Ecole Nationale Superieure des Telecommunications in Paris, as well as the Sorbonne. He has spent numerous sabbaticals as an invited professor at INRIA, where he now holds an International Chair. Vianu's interests include database theory, computational logic, and Web data. His most recent research focuses on specification and verification of data-driven Web services and workflows. Vianu's publications include over 100 research articles and a graduate textbook on database theory.

The CSE professor has given numerous invited talks, including keynotes at PODS, ICDT, STACS, the Annual Meeting of the Association of Symbolic Logic, and the Federated Logic Conference. Vianu has served as General Chair of SIGMOD and PODS, and Program Chair of

the PODS and ICDT conferences. He is currently Editor-in-Chief of the Journal of the ACM and Area Editor of ACM Transactions on Computational Logic. He is a Fellow of the ACM (2006) and the American Association for the Advancement of Science (2013), and is a member of Academia Europaea (2014), the European equivalent of the U.S. National Academies.

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