

ACM Symposium on Principles of Database Systems (PODS)

The 30th Anniversary Colloquium

Athens, June 12, 2011

ORGANIZED BY:

*The PODS Executive Committee – Jan Paredaens, Thomas Schwentick,
Phokion Kolaitis, Maurizio Lenzerini, Jianwen Su, and Dirk Van Gucht*

SPONSORED BY:



Association For Computing Machinery
SPECIAL INTEREST GROUP ON MANAGEMENT OF DATA



Symposium on Principles of Database Systems

- Started in 1982, it is the premiere international conference on Database Theory
- It is co-sponsored by three ACM Special Interest Groups: SIGACT (Theoretical Computer Science), SIGART (Artificial Intelligence), and SIGMOD (Management of Data)
- <http://www.sigmod.org/the-pods-pages>
- **Symposium**
from Greek **Συμπόσιον** – syn "together" + posis "a drinking"
The sense of "meeting on some subject" is from 1700, reflecting the Greek fondness for mixing wine and intellectual discussion.

Before PODS

- Progenitors of PODS:
 - The XP workshops
 - Advanced Seminar on Theoretical Issues in Data Bases (TIDB), Cetraro, Italy, 1981 (organized by Giorgio Ausiello, François Bancilhon, Domenico Saccà, Nicolas Spyratos)

XP1 Workshop on Database Theory

XP stands for "eX Princetonian" (most participants – especially in the early XPs – were students of Jeffrey D. Ullman at Princeton or visiting researchers there).

XP1 (1980)

David Maier (Ed.): XP1 Workshop on Relational Database Theory, 30 June - 2 July 1980, SUNY at Stony Brook, NY, USA.

XP2 (1981)

XP2 Workshop on Relational Database Theory, June 22-24 1981, The Pennsylvania State University, PA, USA.

XP4.5 (1983)

XP4.5 Workshop on Database Theory, 1983 Palo Alto, California, USA.

XP7.52 (1986)

Henry F. Korth (Ed.): XP / 7.52 Workshop on Database Theory, University of Texas at Austin, TX, USA, August 13-15, 1986.

XP1 Workshop on Database Theory

- **Barry E. Jacobs**: *A Generalized Algebraic Data Manipulation Language and the Automatic Conversion of its Programs.*
- **Marc H. Graham**: *A New Proof that the [Chase](#) is a Church-Rosser Replacement System.*
- **Catriel Beeri, Moshe Y. Vardi**: *Decision Problems for Data [Dependencies](#).*
- **David Maier**: *Discarding the Universal Instance Assumption: Preliminary Results.*
- **Ashok K. Chandra, Harry R. Lewis, Johann A. Makowsky**: *Embedded Implicational [Dependencies](#) and their Inference Problem.*
- **Peter Honeyman**: *Losslessly Joining Relations in Polynomial Time.*
- **Edward Sciore**: *Some Observations on Real-World Data [Dependencies](#).*
- **Ashok K. Chandra, David Harel**: *Structure and Complexity of [Relational Queries](#).*
- **Henry F. Korth, Jeffrey D. Ullman**: *System/U: A Database System Based on the Universal Relation Assumption.*
- **Yannis Vassiliou**: *Testing Satisfaction of FDs on a Multi-Relation Database ``fast''.*
- **Peter Honeyman**: *Testing Satisfaction of Functional [Dependencies](#).*
- **Jack Heller**: *The Abstract Data Types Used in the GRIPHOS Database System.*
- **Adrian Walker**: *Time and Space in a Lattice of Universal Relations with Blank Entries.*
- **Jeffrey D. Ullman**: *Universal Instances.*

The birth of PODS

- Growing number of people and topics in Database theory
- Growing difficulty in publishing theory papers in Database conferences (although SIGMOD and VLDB started in 1975, and SIGMOD was the successor of the *ACM SIGFIDET/SIGMOD Workshop on Data Description, Access and Control* started in 1970, many DB theory paper were published in FOCS and STOC)

Sources of information:

Giorgio Ausiello, Catriel Beeri, Phil Bernstein, Ronald Fagin, David Maier, Jeffrey Ullman

The first edition – PODS 1982

- **General Chair:** Jeffrey D. Ullman
- **Program Chair:** Alfred V. Aho
- **Program Committee:**
 - Alfred V. Aho (chair)
 - C. Yu
 - Daniel J. McCleod
 - Daniel J. Rosenkrantz
 - David P. Dobkin
 - Peter Selinger
 - Philip A. Bernstein
 - Ronald Fagin
- **Informal Steering Committee:**
 - Alfred V. Aho
 - Catriel Beerli
 - Philip A. Bernstein
 - Ronald Fagin
 - Seymour Ginsburg
 - Jeffrey Ullman

Organization

- Since 1991, PODS has been held *jointly with the ACM SIGMOD conference*, combining in one place the full spectrum of database research.
- The PODS Executive Committee consists of the current and past two General Chairs and the current and past two Program Committee Chairs. The Executive Committee appoints the Program Committee Chair (two years in advance) and the General Chair for two years. It also chooses the invited keynote speaker of the conference.
- Currently, the PODS Executive Committee consists of *Jan Paredaens, Thomas Schwentick, Phokion G. Kolaitis, Maurizio Lenzerini (Chair), Jianwen Su (to be replaced by Michael Benedikt), and Dirk Van Gucht.*

General and program chairs

1982	Los Angeles, CA, March 29-31	J.D. Ullman	A.V. Aho
1983	Atlanta, GA, March 21-23	R. Fagin	P. A. Bernstein
1984	Waterloo, Canada, April 2-4	D. J. Rosenkrantz	R. Fagin
1985	Portland, OR, March 25-27	S. Ginsburg	J.D. Ullman
1986	Cambridge, MA, March 24-26	A.K. Chandra	A. Silberschatz
1987	San Diego, CA, March 23-25	A.K. Chandra	M.Y. Vardi
1988	Austin, TX, March 21-23	A. Silberschatz	M. Yannakakis
1989	Philadelphia, PA, March 29-31	A. Silberschatz	A.K. Chandra
1990	Nashville, TN, April 2-4	D. J. Rosenkrantz	Y. Sagiv
1991	Denver, CO, May 29-31	D. J. Rosenkrantz	A. Mendelzon
1992	San Diego, CA, June 2-4	M.Y. Vardi	P.C. Kanellakis
1993	Washington, DC, May 25-28	M.Y. Vardi	C. Beeri
1994	Minneapolis, MN, May 24-26	M. Yannakakis	V. Vianu
1995	San Jose, CA, May 22-25	M. Yannakakis	S. Abiteboul
1996	Montreal, Canada, June 3-5	P.C. Kanellakis	R. Hull

(M. Yannakakis, acting)

General and program chairs

1997	Tucson, AZ, May 12-14	A. Mendelzon	Z. M. Ozsoyoglu
1998	Seattle, WA, June 1-3	A. Mendelzon	J. Paredaens
1999	Philadelphia, PA, May 31-June 2	V. Vianu	C. Papadimitriou
2000	Dallas, TX, May 14-16	V. Vianu	G. Gottlob
2001	Santa Barbara, CA, May 21-23	S. Abiteboul	P. Buneman
2002	Madison, WI, June 2-4	S. Abiteboul	P. Kolaitis
2003	San Diego, CA, June 9-12	C. Beeri	T. Milo
2004	Paris, France, June 14-16	C. Beeri	D. Suciu
2005	Baltimore, MA, June 13-15	G. Gottlob	F. Afrati
2006	Chicago, IL, June 26-29	G. Gottlob	J. Van den Bussche
2007	Beijing, China, June 11-13	P. Kolaitis	L. Libkin
2008	Vancouver, Canada, June 9-11	P. Kolaitis	M. Lenzerini
2009	Providence, RI, June 29 - July 2	J. Paredaens	J. Su
2010	Indianapolis, IN, June 6-11	J. Paredaens	D. Van Gucht
2011	Athens, Greece, June 13-15	M. Lenzerini	T. Schwentick

Some numbers

- 958 papers
- 2222 authors
- 990 distinct researchers

More data about PODS in the final session!

Topics of accepted papers

1982	1990	2000	2011
<ul style="list-style-type: none"> • Universal relation • Database equivalence • Concurrency and recovery • Relational algebra • Data dependencies • Index structures and external memory • Data modeling • Query processing 	<ul style="list-style-type: none"> • Object-oriented databases • Deductive databases and Datalog • Concurrency and recovery • Queries and updates • Index structures and external memory • Constraint databases • Temporal databases • Graph databases 	<ul style="list-style-type: none"> • XML technology • Incomplete information • Views/query containment • Spatial and constraint database • Semistructured data • Indexing/transactions • Range queries/selectivity estimation • Data mining • Sampling 	<ul style="list-style-type: none"> • Streaming and sampling • Incomplete information • Data dependencies and exchange • Index structures and external memory • Provenance • Queries and views • Semistructured data and XML • Rule-based query languages

Agenda

- **Moshe Vardi** – *"The rise, fall, and rise of dependency theory: Part 1, the rise and fall"*
- **Ronald Fagin** – *"The rise, fall, and rise of dependency theory: Part 2, the rise from the ashes"*
- **Jeffrey Ullman** – *"Deductive databases"*
- **Serge Abiteboul** – *"Trees, semistructured data, and other strange ways to go beyond tables"*
- **Victor Vianu** – *"Database Theory: Back to the Future"*
- *Discussion* (led by **Frank Neven**)