

Program



28th International Conference on Scientific and Statistical Database Management

July 18-20, 2016 | Budapest, Hungary
<http://ssdbm2016.org>

Host & sponsor of the proceedings



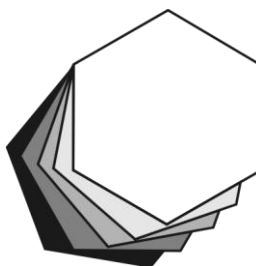
Special sponsor



Gold sponsor



**SSDBM
2016**



**FINAL
PROGRAM**

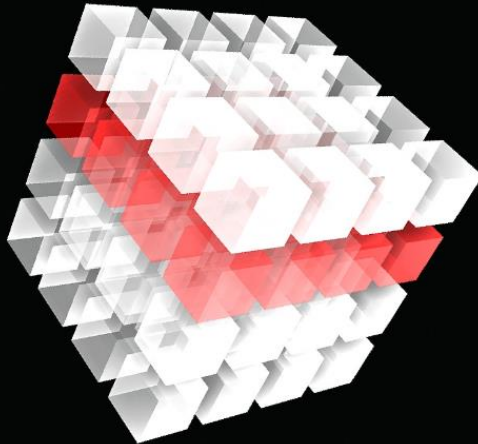
rasdaman
raster data manager



Open Source.
Open Standards.
Flexible and Scalable.
Cost Saving.
Fast.

the Array Database

- +++ Big Data Cube Analytics +++
- +++ declarative queries on n-D arrays +++
- +++ parallel, federated query processing +++
- +++ use of modern hardware +++
- +++ seamless integration with client & server code +++
- +++ querying databases, file system, and in-situ archives +++
- +++ blueprint for ISO Array SQL standard +++



www.rasdaman.com

Day 0 Sunday, July 17

16:00 Registration

19:00 Welcome reception
(buffet style complete dinner until 21:00)

Day 1 Monday, July 18

9:00 Opening

KEYNOTE I

9:30 Data Management and Scalable Data Science: Key Challenges
and (Some) Solutions

Dr. Volker Markl, *TU Berlin, Germany*

10:30 Coffee break

10:50 Session I – Data Exchange, Security and Privacy

Chair: Ioana Manolescu

Efficient Feedback Collection for Pay-as-you-go Source Selection

Julio Cesar Cortes Rios, *The University of Manchester, UK*

Norman W. Paton, *University of Manchester, UK*

Alvaro A. A. Fernandes, *The University of Manchester, UK*

Khalid Belhajjame, *Université Paris Dauphine, France*

Functional Dependencies Unleashed for Scalable Data Exchange

Angela Bonifati, *University of Lyon 1, France*

Ioana Ileana, *Paris Descartes University, France*

Michele Linardi, *Paris Descartes University, France*

Graph-based Modelling of Query Sets for Differential Privacy

Ali Inan, *Adana Science and Technology University, Turkey*

Mehmet Emre Gursoy, *University of California at Los Angeles, USA*

Emir Esmerdag, *Istanbul Technical University, Turkey*

Yucel Saygin, *Sabanci University, Turkey*

PAMPAS: Privacy-Aware Mobile Participatory Sensing Using Secure Probes

Dai Hai Ton That, *David Laboratory, USA*

Iulian Sandu Popa, *David Laboratory, USA | University of Versailles Saint-Quentin &*

INRIA Saclay, France

Karine Zeitouni, *David Laboratory, USA | University of Versailles Saint-Quentin &*

INRIA Saclay, France

Cristian Borcea, *Department of Computer Science, New Jersey Institute of Technology, NJ, USA*

12:30 Lunch

14:00

Session II – Similarity Search and Event Detection

Chair: Elio Masciari

Geometric Graph Indexing for Similarity Search in Scientific Databases

Ayser Armiti, *Moovel Group GmbH, Germany*

Michael Gertz, *Heidelberg University, Germany*

Efficient Similarity Search across Top-k Lists under the Kendall's Tau Distance

Koninika Pal, *TU Kaiserslautern, Germany*

Sebastian Michel, *TU Kaiserslautern, Germany*

Monitoring Spatial Coverage of Trending Topics in Twitter

Kostas Patroumpas, *Athens Research Center & National Technical University of Athens, Greece*

Manolis Loukidakis, *National Technical University of Athens, Greece*

SPOTHOT: Scalable Detection of Geo-spatial Events in Large Textual Streams

Erich Schubert, *Ludwig-Maximilians Universität München, Germany*

Michael Weiler, *Ludwig-Maximilians Universität München, Germany*

Hans-Peter Kriegel, *Ludwig-Maximilians Universität München, Germany*

15:50 **Coffee break**

16:10 **TUTORIAL - Array Databases**

Presenter: Dimitar Misev, *Jacobs University, Germany*

Free evening

Day 2 Tuesday, July 19

KEYNOTE II

9:00 **From the Big Bang to Bitcoins: Data-intensive Approach in Sciences**

Dr. István Csabai, *Eötvös Loránd University, Hungary*

10:00 **Demo & poster flash talks**

10:10 **Coffee break**

Session III – Massive Data Processing

Chair: Arie Shoshani

Efficient Maintenance of All-Pairs Shortest Distances

Sergio Greco, *University of Calabria, Italy*

Cristian Molinaro, *University of Calabria, Italy*

Chiara Pulice, *University of Calabria, Italy*

Bermuda: An Efficient MapReduce Triangle Listing Algorithm for Web-Scale Graphs

Dongqing Xiao, *Worcester Polytechnic Institute, USA*

Mohamed Eltabakh, *Worcester Polytechnic Institute, USA*

Xiangnan Kong, *Worcester Polytechnic Institute, USA*

PIEJoin: Towards Parallel Set Containment Joins

Ulf Leser, *Humboldt-Universität zu Berlin, Germany*

Anja Kunkel, *Humboldt-Universität zu Berlin, Germany*

Astrid Rheinländer, *Humboldt-Universität zu Berlin, Germany*

Christopher Schiefer, *Humboldt-Universität zu Berlin, Germany*

Sven Helmer, *Free University of Bozen-Bolzano, Italy*

Panagiotis Boursos, *Aarhus University, Denmark*

Multi-Assignment Single Joins for Parallel Cross-Match of Astronomic Catalogs on Heterogeneous Clusters

Xiaoying Jia, *Hong Kong University of Science and Technology, Hong Kong*

Qiong Luo, *Hong Kong University of Science and Technology, Hong Kong*

Regular Path Queries on Massive Graphs

Carlo Sartiani, *Università della Basilicata, Potenza, Italy*

Maurizio Nolè, *Università della Basilicata, Potenza, Italy*

12:30 **Lunch**

14:30 **Excursion to Visegrád by bus (incl. dinner)**

Day 3 Wednesday, July 20

9:00

Session IV – Novel Data Management Paradigms

Chair: Peter Baumann

SolveDB: Integrating Optimization Problem Solvers Into SQL Databases

Laurynas Siksnys, *Aalborg University, Denmark*

Torben Bach Pedersen, *Aalborg University, Denmark*

Compact and Queryable Representation of Raster Datasets

José Paramá, *Universidade da Coruña, Spain*

Susana Ladra, *Universidade da Coruña, Spain*

Fernando Silva-Coira, *Universidade da Coruña, Spain*

Vectorized UDFs in Column-Stores

Mark Raasveldt, *CWI, The Netherlands*

Hannes Mühleisen, *CWI, The Netherlands*

SPECTRA: Continuous Query Processing for RDF Graph Streams over Sliding Windows

Syed Gillani, *University of Lyon, UJM-Saint-Etienne, CNRS, Laboratoire Hubert Curien Saint Etienne, France*

Frederique Laforest, *University of Lyon, UJM-Saint-Etienne, CNRS, Laboratoire Hubert Curien Saint Etienne, France*

Gauthier Picard, *University of Lyon, EMSE, CNRS, Laboratoire Hubert Curien Saint Etienne, France*

10:40 **Coffee break**

11:00

Session V – Mining and Data Analysis

Chair: to be announced

Pruning Forests to Find the Trees

Hasan Jamil, *University of Idaho, USA*

Framework for Real-time Non-decremental Clustering over Sliding Windows

Sobhan Badiozamani, *Uppsala University, Sweden*

Kjell Orsborn, *Uppsala University, Sweden*

Tore Risch, *Uppsala University, Sweden*

Fast, Explainable View Detection to Characterize Exploration Queries

Thibault Sellam, *CWI, The Netherlands*

Martin Kersten, *CWI, The Netherlands*

Novel Data Reduction Based on Statistical Similarity

Donggun Lee, *Lawrence Berkeley National Laboratory, USA*

Alex Sim, *Lawrence Berkeley National Laboratory, USA*

Jaesik Choi, *Ulsan National Institute of Science and Technology, Korea*

Kesheng Wu, *Lawrence Berkeley National Laboratory, USA*

12:40 **Lunch**

14:00 **Coffee break + demo and poster viewing**

SciServer Compute: Bringing Analysis Close to the Data

Dmitry Medvedev, *Johns Hopkins University, USA*

Gerard Lemson, *Johns Hopkins University, USA*

Mike Rippin, *Johns Hopkins University, USA*

Selective Scan for Filter Operator of SciDB

Bongki Moon, *Seoul National University, Korea*

Sangchul Kim, *Seoul National University, Korea*

Seoung Gook Sohn, *Seoul National University, Korea*

Taehoon Kim, *Seoul National University, Korea*

Bo gyeong Kim, *Seoul National University, Korea*

Jinseon Yu, *Seoul National University, Korea*

Demonstrating KDBMS: A Knowledge-based Database Management System

Mohamed E. Khalefa, *Alexandria University, Egypt*

Sameh S. El-Atawy, *Accorpa LLC, Egypt*

Array Database Scalability: Intercontinental Queries on Petabyte Datasets

Peter Baumann, *Jacobs University, Germany*

Vlad Merticariu, *Jacobs University, Germany*

Mircea Alexandru Dumitru, *Jacobs University, Germany*

Data Exchange with MapReduce: A First Cut

Khalid Belhajjame, *Paris Dauphine University, France*

Angela Bonifati, *University of Lyon 1, France*

Privacy or Security? Take a Look and then Decide

Elio Masciari, *ICAR-CNR, Italy*

Bettina Fazzinga, *ICAR-CNR, Italy*

Filippo Furfaro, *DIMES-UNICAL, Italy*

Giuseppe Mazzeo, *University of California, Los Angeles, USA*

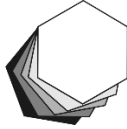
SMS: Stable Matching Algorithm using Skylines

Arnab Bhattacharya, *Indian Institute of Technology, Kanpur*

Rohit Anurag, *Indian Institute of Technology, Kanpur*

15:00 **Wrap up**

15:30 **End of conference**



General information

Venue

Danubius Thermal Hotel Margitsziget****
Budapest
Margitsziget (Margaret Island)
H-1007

Registration desk

Sunday, 17 July 2016	16:00-19:30
Monday, 18 July 2016	08:00-17:00
Tuesday, 19 July 2016	08:00-19:00
Wednesday, 20 July 2016	08:00-17:00

Important phone numbers

English is usually spoken at the emergency numbers listed below.
In case English is not spoken, dial 112

Ambulance: 104
Police: 107
General enquiries: 197
International enquiries: 199
Hungarian Automobile Club help number: 188

Fire brigade: 105
Central help number: 112
Inland enquiries: 198

Time

Hungary is in the Central European Time Zone.
In the summer months clocks are set at GMT + 2 hours.

Social events

Welcome reception

On Sunday, 17 July 2016 19:00
Széchenyi Terrace, Danubius Grand Hotel Margitsziget
(50 meters from the venue)

The organizers invite you for a BBQ-style buffet dinner on the evening of your arrival. We wish to serve you with some refreshment after your travel. Our other aim is to create a familiar atmosphere where you can meet old friends, and make new relationships, too.

The event is included in the registration fees.

Excursion to Visegrád by bus

On Tuesday, 19 July 2016 14:00

The organizers call you this day for a medieval journey to Visegrád, the capital of the Hungarian kings of the 14-15th century. We will visit the headquarter of these rulers, the Royal Palace. Then we will join a knights' tournament followed by a real renaissance feast in the "Renaissance" Restaurant. Gathering in the lobby of the Thermal Hotel Margitsziget at 13:45.

The event is included in the registration fees.

Smartphone application

We are proud to announce that our conference will be supported by the „SmartEvents” mobile application. This application is available for each platforms:



Apple - AppStore



Google Play



Windows Phone Store



After installing the software to your device, you should scan your very personal QR-code to finish the setup. These codes were sent by e-mail to your e-mail address used for the registration.

Program Committee

Ioana Manolescu, Inria, Paris, France (program committee chair)

Peter Baumann, Jacobs University, Germany (general chair)

Yannis Ioannidis, Athena Research Center and University of Athens, Greece (tutorial chair)

Luca Trani, KNMI, The Netherlands (demo chair)

Gagan Agrawal, Ohio State University

Ilkay Altintas, San Diego Supercomputing Center

Torben Bach Pedersen, Aalborg University

Khalid Belhajjame, U. Dauphine

Zohra Bellahsene, U. Montpellier

Klemens Bohm, Karlsruher Institut für Technologie

Angela Bonifati, University of Lyon 1

Tamás Budavári, Johns Hopkins University

Chee-Yong Chan, NUS

Stefano Ceri, Politecnico di Milano

Olli Clemens, Plymouth Marine Laboratory

Sarah Cohen-Boulakia, Université Paris Sud

Bing Dong, Berkeley Lab

Wenfei Fan, University of Edinburgh

Sergio Flesca, Università di Calabria

Avrilia Floratou, IBM

Ingemar Haggstrom, EISCAT

François Goasdoué, Université Rennes 1

Lukasz Golab, University of Waterloo

Amarnath Gupta, San Diego Supercomputing Center

Christopher Jermaine, Rice University

Alexis Joly, INRIA

Zoi Kaoudi, Qatar Computing Research Institute

Asterios Katsifodimos, Technical University of Berlin

Martin Kersten, CWI

Julien Leblay, AIST

Wolfgang Lehner, TU Dresden

Silviu Maniu, Université Paris Sud

Elio Masciari, CNR

Giansalvatore Mecca, Università della Basilicata

Paolo Missier, Newcastle University

Kjetil Norvag, Norwegian University of Science and Technology

Themis Palpanas, Université Paris 5

Thanasis Papaioannou, Centre for Research and Technology Hellas

Nathalie Pernelle, Université Paris Sud

Emmanuel Pietriga, INRIA

Tillman Rabl, Technical University

Matthias Renz, LMU Munchen

Tore Risch, Uppsala University

Dennis Shasha, New York University

Alessandro Spinuso, KNMI

Farouk Toumani, Université Blaise Pascal

Yannis Velegrakis, Trento University

Sai Wu, Zhejiang University

Demo Committee

Luca Trani, Koninklijk Nederlands Meteorologisch Instituut, The Netherlands (chair)
George Kakaletis, University of Athens, Greece
Florin Rusu, University of California, USA
László Dobos, Eötvös Loránd University, Hungary

Steering Committee

Arie Shoshani, Lawrence Berkeley National Laboratory, USA (chair)
Torben Bach Pedersen, Aalborg University, Denmark
Magdalena Balazinska, University of Washington, USA
Anastasia Ailamaki, EPFL, Switzerland
Judith Cushing, The Evergreen State College, USA

Local Organizing Committee

László Dobos, Eötvös Loránd University, Hungary
Gergely Gábor Barnaföldi, Wigner Research Centre, Hungary

Local Organizing Committee

Diamond Congress Ltd.
POB 48 Budapest
1255, Hungary
diamond@diamond-congress.hu
<http://www.diamond-congress.hu>



ERICSSON

LET'S
CELEBRATE
140 YEARS
OF INNOVATING
AHEAD

We've been at the forefront of innovation for 140 years.
Get ready for the next 140.

140 >>

YEARS OF INNOVATING AHEAD

Timetable

Sunday, July 17 Day 0	Monday, July 18 Day 1	Tuesday, July 19 Day 2	Wednesday, July 20 Day 3
	8:00-9:00 Registration		
	9:00-9:30 Opening	9:00-10:00 KEYNOTE II Dr. István Csabai	9:00-10:40 Session IV Novel Data Management Paradigms
	9:30-10:30 KEYNOTE I Dr. Volker Markl	Demo & poster flash talks (10')	
		Coffee break (20')	
	Coffee break (20')		Coffee break (20')
	10:50-12:30 Session I Data Exchange, Security and Privacy	10:30-12:30 Session III Massive Data Processing	11:00-12:40 Session V Mining and Data Analysis
	Lunch (90')	Lunch (90')	Lunch (80')
	14:00-15:50 Session II Similarity Search and Event Detection		14:00-15:00 Coffee break & Demos/Posters
	Coffee break (20')		15:00- Wrap up & Farewell
	16:10- TUTORIAL Array Databases		
		14:30- Excursion to Visegrád by bus (incl. dinner)	
	<i>Free evening</i>		
16:00-19:00 Registration			
19:00-21:00 Welcome Reception (Széchenyi Terrace, Grand Hotel Margitsziget)			