Scientific Publications and Activities of the SAP HANA Database Campus

This is a list of selected publications and activities made by the SAP HANA Database Campus.

2019

- Frank Tetzel, Romans Kasperovics, Wolfgang Lehner: Graph Traversals for Regular Path Queries. GRADS-NDA 2019 [Paper]

2018

- Florian Wolf, Michael Brendle, Norman May, Paul. R. Willems, Kai-Uwe Sattler, Michael Grossniklaus: Robustness Metrics for Relational Query Execution Plans. VLDB ’18 [Paper]
- Frank Tetzel, Hannes Voigt, Marcus Paradies, Romans Kasperovics, Wolfgang Lehner: Analysis of Data Structures Involved in RPQ Evaluation. DATA ’18
- Thomas Bach, Ralf Pannemans and Sascha Schwedes: Effects of an Economic Approach for Test Case Selection and Reduction for a Large Industrial Project. TAIC PART ’18 [Paper]
- Renzo Angles, Marcelo Arenas, Pablo Barcelo, Peter Boncz, George Fletcher, Claudio Gutierrez, Tobias Lindaaker, Marcus Paradies, Stefan Plantikow, Juan Sequeda, Oskar van Rest, Hannes Voigt: G-CORE: A core for future graph query languages. SIGMOD’18 [Paper]
- Florian Wolf, Norman May, Paul R. Willems, Kai-Uwe Sattler: On the Calculation of Optimality Ranges for Relational Query Execution Plans. SIGMOD ’18 [Paper]

2017

- Stefan Bäuerle, Alexander Böhm: Bridging the semantical gap between relational data and application-level business objects with core data services. Invited talk. DBPL@VLDB 2017
- Stefan Bäuerle, Alexander Böhm: Bringing computation to the data(base) with Core Data Services (CDS). LWDA 2017
- Marcus Paradies, Cornelia Kinder, Jan Bross, Thomas Fischer, Romans Kasperovics and Hinnerk Gildhoff: GraphScript: Implementing Complex Graph Algorithms in SAP HANA. DBPL@VLDB 2017
- Ismail Oukid, Anissoara Nica, Daniel Dos Santos Bossie, Wolfgang Lehner, Peter Bumbulis, Thomas Willhalm: Adaptive Recovery for SCM-Enabled Databases. ADMS@VLDB 2017
- Lucas Lersch, Ismail Oukid, Ivan Schreter, Wolfgang Lehner: Rethinking DRAM Caching for LSMs in an NVRAM Environment. ADBIS 2017
- Frank Tetzel, Hannes Voigt, Marcus Paradies, Wolfgang Lehner: An Analysis of the Feasibility of Graph Compression Techniques for Indexing Regular Path Queries. GRADES 2017
- Matthias Hauck, Marcus Paradies, Holger Fröhling: Can Modern Graph Processing Engines Run Concurrent Queries Efficiently? GRADES 2017
- Norman May, Alexander Boehm, Wolfgang Lehner: SAP HANA - The Evolution of an In-Memory DBMS from OLAP Processing Towards Mixed Workloads. BTW 2017
- Michael Rudolf, Hannes Voigt, Wolfgang Lehner: SPARQLytics: Multidimensional Analytics for RDF. BTW 2017
- Thomas Bach, Artur Andrzejkaj, and Ralf Pannemans: Coverage-Based Reduction of Test Execution Time: Lessons from a Very Large
2016

- Tobias Scheuer, Norman May, Alexander Boehm, Daniel Scheibl: JxLog: A Sonar for the Abyss, Demo, VLDL 2016, New Delhi, India, Sept. 5-9, 2016
- Alexander Boehm, Jens Dittrich (Saarland University), Niloy Mukherjee (Oracle), Ippokratis Pandis (Amazon Web Services) Rajkumar Sen (Oracle): Tutorial: Operational analytics data management systems, VLDL 2016, New Delhi, India, Sept. 5-9, 2016
- Ismail Oukid, Daniel Booss, Adrien Lespinasse, Wolfgang Lehner. On Testing Persistent-Memory-Based Software. DaMoN 2016 (co-located with SIGMOD 2016), San Francisco, California, USA, June 27, 2016

2015

- Matthias Hauck, Marcus Paradies, Holger Fröning, Wolfgang Lehner and Hannes Rauhe. Highspeed Graph Processing Exploiting Main-Memory Column Stores, Workshop on Performance Engineering for Large Scale Graph Analytics (PELGA2015), in conjunction with EuroPar 2015, Vienna, Austria, Aug. 25, 2015
- 2nd place in the ACM SIGMOD 2015 programming contest. For more details, click here.
- The second SAP HANA student Campus Open House day took place in Walldorf on June 24th, 2015. For more details, click here.
- Mehul Wagle, Daniel Booss, Ivan Schreter. Scalable NUMA-Aware Memory Allocations with In-Memory Databases. TPCTC 2015 (co-located with VLDB 2015), Kohala Coast, Hawaii, USA, August 31 - September 4, 2015
- Marcus Paradies, Elena Vasilyeva, Adrian Mocan, Wolfgang Lehner. Robust Cardinality Estimation for Subgraph Isomorphism Queries on Property Graphs. Big-O(Q) 2015 (co-located with VLDB 2015), Kohala Coast, Hawaii, USA, August 31 - September 4, 2015.
- David Kernert, Norman May, Michael Hladik, Klaus Werner, Wolfgang Lehner. From Static to Agile - Interactive Particle Physics Analysis with the SAP HANA DB. DATA 2015, Colmar, France, July 20-22, 2015.
- Elena Vasilyeva, Maik Thiele, Adrian Mocan, Wolfgang Lehner. Relaxation of Subgraph Queries Delivering Empty Results. SSDBM 2015, San Diego, USA, June 29 - July 1, 2015.
- Alexander Boehm, Jens Dittrich (Saarland University), Niloy Mukherjee (Oracle), Ippokratis Pandis (Amazon Web Services) Rajkumar Sen (Oracle): Tutorial: Operational analytics data management systems, VLDL 2016, New Delhi, India, Sept. 5-9, 2016
- Ismail Oukid, Daniel Booss, Adrien Lespinasse, Wolfgang Lehner. On Testing Persistent-Memory-Based Software. DaMoN 2016 (co-located with SIGMOD 2016), San Francisco, California, USA, June 27, 2016

2014

- The first SAP HANA Student Campus Open House day took place in Walldorf on June 5th, 2014. For more details, click here.
- Kim-Thomas Rehmann, Alexander Böhm, Dong Hun Lee, Jörg Wiemers: Continuous performance testing for SAP HANA. First International Workshop on Reliable Data Services and Systems (RDSS), Co-located with ACM SIGMOD 2014, Snowbird, Utah, USA.
- Guido Moerkotte, David DeHaan, Norman May, Anisoara Nica, Alexander Böhm: Exploiting ordered dictionaries to efficiently construct histograms with q-error guarantees in SAP HANA. SIGMOD Conference 2014, Snowbird, Utah, USA.
- David Kernert, Frank Köhler, Wolfgang Lehner. SLACID - Sparse Linear Algebra in a Columnar In-Memory Database System. SSDBM, Aalborg, Denmark, June/July 2014.
- Elena Vasilyeva, Maik Thiele, Christof Bornhövd, Wolfgang Lehner: GraphMCS: Discover the Unknown in Large Data Graphs. EDBT/ICDT Workshops: 200-207.

2013

- David Kernert, Frank Köhler, Wolfgang Lehner. Bringing Linear Algebra Objects to Life in a Column-Oriented In-Memory Database. IMDM 2013, Riva del Garda, Italy, August 2013.
- Martin Kaufmann, Panagiotis Vagenas, Peter M. Fischer (Univ. of Freiburg), Donald Kossmann, Franz Färber (SAP). DEMO: Comprehensive and Interactive Temporal Query Processing with SAP HANA. VLDB 2013, Riva del Garda, Italy, August 26-30, 2013.
- Philipp Groß, Wolfgang Lehner, Norman May: Advanced Analytics with the SAP HANA Database. DATA 2013.
- Jonathan Dees, Peter Sanders. Efficient Many-Core Query Execution in Main Memory Column-Stores. ICDE 2013, Brisbane, Australia, April 8-12, 2013.
- Martin Kaufmann, Amin A. Manjili, Stefan Hildenbrand, Donald Kossmann, Andreas Tonder (SAP). Time Travel in Column Stores. ICDE 2013, Brisbane, Australia, April 8-12, 2013.

2012

GMOD Conference (p. 731).


Sebastian Breß, Felix Beier, Hannes Rauhe, Eike Schallehn, Kai-Uwe Sattler, and Gunter Saake. 2012. Automatic selection of processing units for coprocessing in databases. ADBIS'12

2011


2010


Paradies, M., Lemke, C., Plattner, H., Lehner, W., Sattler, K., Zeier, A., Krüger, J. (2010): How to Juggle Columns: An Entropy-Based Approach for Table Compression, IDEAS.

2009


2008


Transier, F., & Sanders, P. (2008). Compressed Inverted Indexes for In-Memory Search Engines. ALENEX (pp. 3-12).

2007


2006

