

Jana Giceva

CONTACT INFORMATION	Institut für Informatik – Lehrstuhl III (I3) Technische Universität München Boltzmannstr. 3, 85748 Garching	Office: +49 (0)89 289-17286 Email: giceva@in.tum.de URL: https://db.in.tum.de/~giceva
RESEARCH INTERESTS	Systems support for data analytics in the cloud environment with emphasis on modern hardware, databases/operating system co-design, and hardware/software co-design.	
ACADEMIC POSITIONS	Assistant Professor, Computer Science Department of Computer Science, TU Munich	01/2020 – present
	Assistant Professor (Lecturer), Computer Science Department of Computing, Imperial College London	10/2017 – 12/2019
EDUCATION	Ph.D., Computer Science Systems Group, ETH Zürich, Switzerland Thesis: <i>Database/Operating System Co-design</i> , advised by Prof. Gustavo Alonso ETH Medal award for outstanding PhD dissertation	07/2011 – 03/2017
	M.Sc., Computer Science ETH Zürich, Switzerland	09/2009 – 05/2011
	B.Sc., Computer Science Jacobs University Bremen, Germany	09/2006 – 05/2009
PROFESSIONAL EXPERIENCE	Microsoft Research , Silicon Valley, California USA <i>Research intern</i>	05/2014 – 08/2014
	Oracle Labs , Belmont, California USA <i>Research intern</i>	06/2013 – 09/2013
HONORS AND AWARDS	SIGMOD honorable mention paper award, 2021 VMware Early Career Faculty Award, 2019 ETH medal for outstanding PhD dissertation in the Department of Computer Science, 2018 European Google Ph.D. Fellowship for Operating Systems, 2014 Best Poster Award “Databases and Operating Systems: Friends or Foes?”, EuroSys 2012	
FUNDING	DFG (SPP 2037/2) Co-PI on “Scaling beyond DRAM with PMem without sacrificing performance”	awarded in 2020 EUR 600'000
	VMware Early Career Faculty Award Unrestricted gift supporting our groups research	awarded in 2019 USD 50'000
	USENIX travel grant Covered my registration fees, hotel and transport for HotOS 2015	awarded in 2015 USD 2'000.
	Google PhD Scholarship for Operating Systems Funding for the last three years of my PhD	awarded in 2014 CHF 240'000.

COMMUNITY
SERVICE

Chair:

SIGMOD Workshops 2021/22, ICDE Workshops 2021, EuroSys Workshops 2021, SIGMOD Student Research Competition 2018/19, EuroSys Travel Grants 2019

Program committee member:

various conferences over the years including: VLDB, SIGMOD, NSDI, USENIX ATC, SoCC, CIDR, ICDE, HotCloud, their industry/demo tracks, numerous workshops.

PEER-REVIEWED
PUBLICATIONS

Schmidt T., Bandle M., **Giceva J.** [A four-dimensional Analysis of Partitioned Approximate Filters](#). *Proceedings of VLDB Endowment, Volume 14, Issue 11, 2021*

Bandle M., **Giceva J.** [Database Technology for the Masses: Sub-Operators as First Class Entities](#) *Proceedings of VLDB Endowment, Volume 14, Issue 11, 2021*.

Bandle M., **Giceva J.**, Neumann T. [To partition, or not to partition, that is the join question in a real system](#). *2021 ACM SIGMOD International Conference on Management of Data*

Beischl A., Kersten T., Bandle M., **Giceva J.**, Neumann T. [Profiling Dataflow Systems on Multiple Abstraction Levels](#) *2021 Conference on Computer Systems (EuroSys)*

Bottcher J., Leis V., **Giceva J.**, Neumann T., Kemper A. Scalable and Robust Latches for Database Systems, *Intl. Workshop on Data Management on New Hardware (ACM DaMoN 2020)*

Jana Giceva. [Operating Systems Support for Data Management on Modern Hardware](#) *Proceedings of the IEEE Data Engineering Bulletin, Volume 42, Number 1, 2019*

Holger Pirk, **Jana Giceva**, Peter Pietzuch. [Thriving in the No Man's Land between Compilers and Databases](#) *Online Proceedings of the 9th Biennial Conference on Innovative Data Systems Research (CIDR), 2019*

Jana Giceva, Mohammad Sadoghi. [Hybrid OLTP and OLAP](#) *Springer's Encyclopedia of Big Data Technologies, 2019*

Darko Makreshanski, **Jana Giceva**, Claude Barthels, and Gustavo Alonso. [BatchDB: Efficient Isolated Execution of Hybrid OLTP+OLAP Workloads for Interactive Applications](#), *Proceedings of the 2017 ACM SIGMOD International Conference on Management of Data*

Kaan Kara, **Jana Giceva**, and Gustavo Alonso. [FPGA Based Data Partitioning](#), *Processings of the 2017 ACM SIGMOD International Conference on Management of Data*

Jana Giceva, Gerd Zellweger, Gustavo Alonso, and Timothy Roscoe. [Customized OS support for data processing](#), *Proceedings of the 12th International Workshop on Data Management on New Hardware (ACM DaMoN 2016)*

Ionel Gog, **Jana Giceva**, Malte Schwarzkopf, Kapil Vaswani, Dimitrios Vytiniotis, Ganesen Ramalingam, Manuel Costa, Derek G. Murray, Steven Hand, and Michael Isard. [Broom: Sweeping Out Garbage Collection from Big Data Systems](#), *Proceedings of the 15th USENIX Conference on Hot Topics in Operating Systems (HotOS 2015)*

Jana Giceva, Gustavo Alonso, Timothy Roscoe, and Tim Harris. [Deployment of Query Plans on Multicores](#), *Proceedings of the VLDB Endowment, Volume 8, Issue 3, 2014*

Jana Giceva, Tudor-Ioan Salomie, Adrian Schüpbach, Gustavo Alonso, and Timothy Roscoe. [COD: Databases/Operating System Co-Design](#), *Online Proceedings of the 6th Biennial Conference on Innovative Data Systems Research (CIDR), 2013*

Jana Giceva, Adrian Schüpbach, Gustavo Alonso, and Timothy Roscoe. [Towards Database/Operating system co-design](#), *Second Workshop on Systems for Future Multicore Architectures (SFMA), 2012*

Tudor-Ioan Salomie, Ionut Emanuel Subasu, **Jana Giceva**, and Gustavo Alonso. [Database Engines on Multicores. Why Parallelize When You Can Distribute?](#), *Proceedings of the Sixth Conference on*

Computer Systems (EuroSys 2011)

Jana Giceva, Christoph Lange, and Florian Rabe. [Integrating Web Services into Active Mathematical Documents](#), MKM/CICM 2009 *Proceedings for Intelligent Computer Mathematics, 16th Symposium, Calculemus 2009, 8th International Conference, MKM 2009, Part of CICM 2009*

INVITED TALKS

Cloud-native Data Systems in the Post-Moore Era

Invited fresh thinking talk at BTW (German conference for Database Research), Department Seminar Talk at TUM (June 2021), Microsoft Gray Systems Laboratory (July 2021), ITU Copenhagen (September 2021), University of Cambridge (October 2021)

Active heterogeneous hardware and its impact on system design

Invited keynote at the Workshop on Data Management on New Hardware (DaMoN) (June 2018), Department Seminar Talk at Imperial College London (November 2018), KTH (December 2018), VMware Research (January 2019), University of Edinburgh, TU Dortmund, Huawei Workshop on Future of Cloud Technologies, Munich Internet Research Retreat Teitensaslach (MIR3).

Revisiting the system stack for data processing on modern hardware

Department Seminar Talk at University of Cambridge (April 2018), TU Munich (July 2018)

Customizing the system stack for data processing on modern hardware

Cornell (January 2017), Yale (February 2017), MSR Redmond (February 2017), Simon Fraser University (February 2017), University of Maryland College Park (February 2017), University of Chicago (February 2017), UC Santa Cruz (February 2017), Boston University (February 2017), Purdue (March 2017), Imperial College London (March 2017), Georgia Tech (March 2017), Rice University (March 2017), University of Illinois Urbana Champaign (March 2017), MSR Cambridge (April 2017), University of Washington (April 2017)

OS support for data processing on modern hardware

TU Dortmund colloquium talk (October 2016)

Customized operating system support for data processing

Workshop on Data Management on New Hardware (DaMoN) (June 2016), Oracle Labs (June 2016), IBM Research Almaden (June 2016), HPE Labs (June 2016), Stanford (June 2016), VMWare (June 2016), UC Berkeley (August 2016), Microsoft Research (August 2016), MIT (November 2016)

Basslet: an OS runtime for parallel data processing

Workshop on Multicore and Rack-Scale computing (MaRS), April 2016.

Rethinking the interface between Databases and Operating Systems

Dagstuhl Seminar on Rack-Scale Computing (October 2015)

Deployment of Query Plans on Multicores

VLDB (September 2015), Oracle Labs (August 2015)

Rack-scale data processing

Workshop for Rack-scale computing (WRSC) (April 2015)

Databases and Operating Systems: friends or foes?

Systems for Future Multicore architectures (SFMA) (April, 2012)