# ATC 2018

[Tributary: spot-dancing for elastic services with latency SLOs](https://www.usenix.org/conference/atc18/presentation/harlap)

Aaron Harlap and Andrew Chung, *Carnegie Mellon University;* Alexey Tumanov, *UC Berkeley;* Gregory R. Ganger and Phillip B. Gibbons, *Carnegie Mellon University*

[Mainstream: Dynamic Stem-Sharing for Multi-Tenant Video Processing](https://www.usenix.org/conference/atc18/presentation/jiang)

Angela H. Jiang, Daniel L.-K. Wong, Christopher Canel, Lilia Tang, and Ishan Misra, *Carnegie Mellon University;* Michael Kaminsky, Michael A. Kozuch, and Padmanabhan Pillai, *Intel Labs;* David G. Andersen and Gregory R. Ganger, *Carnegie Mellon University*

[VideoChef: Efficient Approximation for Streaming Video Processing Pipelines](https://www.usenix.org/conference/atc18/presentation/xu-ran)

Ran Xu, Jinkyu Koo, Rakesh Kumar, and Peter Bai, *Purdue University;* Subrata Mitra, *Adobe Research;* Sasa Misailovic, *University of Illinois Urbana-Champaign;*Saurabh Bagchi, *Purdue University*

[SOCK: Rapid Task Provisioning with Serverless-Optimized Containers](https://www.usenix.org/conference/atc18/presentation/oakes)

Edward Oakes, Leon Yang, Dennis Zhou, and Kevin Houck, *University of Wisconsin-Madison;* Tyler Harter, *Microsoft, GSL;* Andrea C. Arpaci-Dusseau and Remzi H. Arpaci-Dusseau, *University of Wisconsin-Madison*

[DynaMix: Dynamic Mobile Device Integration for Efficient Cross-device Resource Sharing](https://www.usenix.org/conference/atc18/presentation/chae)

Dongju Chae, *POSTECH;* Joonsung Kim and Gwangmu Lee, *Seoul National University;* Hanjun Kim, *POSTECH;* Kyung-Ah Chang and Hyogun Lee, *Samsung Electronics;*Jangwoo Kim, *Seoul National University*

[The Design and Implementation of Hyperupcalls](https://www.usenix.org/conference/atc18/presentation/amit)

Nadav Amit and Michael Wei, *VMware Research*  
***Awarded Best Paper!***

[AIQL: Enabling Efficient Attack Investigation from System Monitoring Data](https://www.usenix.org/conference/atc18/presentation/gao)

Peng Gao, *Princeton University;* Xusheng Xiao, *Case Western Reserve University;* Zhichun Li and Kangkook Jee, *NEC Laboratories America, Inc.;* Fengyuan Xu, *National Key Lab for Novel Software Technology, Nanjing University;* Sanjeev R. Kulkarni and Prateek Mittal, *Princeton University*

[Application Memory Isolation on Ultra-Low-Power MCUs](https://www.usenix.org/conference/atc18/presentation/hardin)

Taylor Hardin, *Dartmouth College;* Ryan Scott, *Clemson University;* Patrick Proctor, *Dartmouth College;* Josiah Hester, *Northwestern University;* Jacob Sorber, *Clemson University;* David Kotz, *Dartmouth College*

[Peeking Behind the Curtains of Serverless Platforms](https://www.usenix.org/conference/atc18/presentation/wang-liang)

Liang Wang, *UW-Madison;* Mengyuan Li and Yinqian Zhang, *The Ohio State University;* Thomas Ristenpart, *Cornell Tech;* Michael Swift, *UW-Madison*

[Soteria: Automated IoT Safety and Security Analysis](https://www.usenix.org/conference/atc18/presentation/celik)

Z. Berkay Celik, Patrick McDaniel, and Gang Tan, *The Pennsylvania State University*

[Scaling Guest OS Critical Sections with eCS](https://www.usenix.org/conference/atc18/presentation/kashyap)

Sanidhya Kashyap, *Georgia Institute of Technology;* Changwoo Min, *Virginia Tech;* Taesoo Kim, *Georgia Institute of Technology*

[KylinX: A Dynamic Library Operating System for Simplified and Efficient Cloud Virtualization](https://www.usenix.org/conference/atc18/presentation/zhang-yiming)

Yiming Zhang, *NiceX Lab, NUDT;* Jon Crowcroft, *University of Cambridge;* Dongsheng Li and Chengfen Zhang, *NUDT;* Huiba Li, *Alibaba;* Yaozheng Wang and Kai Yu, *NUDT;* Yongqiang Xiong, *Microsoft;* Guihai Chen, *SJTU*

[Virtualizing Energy Storage Management Using RAIBA](https://www.usenix.org/conference/atc18/presentation/chiueh)

Tzi-cker Chiueh, Mao-Cheng Huang, Kai-Cheung Juang, Shih-Hao Liang, and Welkin Ling, *Industrial Technology Research Institute*

[Cntr: Lightweight OS Containers](https://www.usenix.org/conference/atc18/presentation/thalheim)

Jörg Thalheim and Pramod Bhatotia, *University of Edinburgh;* Pedro Fonseca, *University of Washington;* Baris Kasikci, *University of Michigan*

[Throwhammer: Rowhammer Attacks over the Network and Defenses](https://www.usenix.org/conference/atc18/presentation/tatar)

Andrei Tatar and Radhesh Krishnan Konoth, *Vrije Universiteit Amsterdam;* Elias Athanasopoulos, *University of Cyprus;* Cristiano Giuffrida, Herbert Bos, and Kaveh Razavi, *Vrije Universiteit Amsterdam*

[Varys: Protecting SGX Enclaves from Practical Side-Channel Attacks](https://www.usenix.org/conference/atc18/presentation/oleksenko)

Oleksii Oleksenko, Bohdan Trach, Robert Krahn, and André Martin, *TU Dresden;* Mark Silberstein, *Technion;* Christof Fetzer, *TU Dresden*

[Kernel-Supported Cost-Effective Audit Logging for Causality Tracking](https://www.usenix.org/conference/atc18/presentation/ma-shiqing)

Shiqing Ma, *Purdue University;* Juan Zhai, *Nanjing University;* Yonghwi Kwon, *Purdue University;* Kyu Hyung Lee, *University of Georgia;* Xiangyu Zhang, *Purdue University;* Gabriela Ciocarlie, Ashish Gehani, and Vinod Yegneswaran, *SRI International;* Dongyan Xu, *Purdue University;* Somesh Jha, *University of Wisconsin-Madison*

[EPTI: Efficient Defence against Meltdown Attack for Unpatched VMs](https://www.usenix.org/conference/atc18/presentation/hua)

Zhichao Hua, Dong Du, Yubin Xia, Haibo Chen, and Binyu Zang, *Institute of Parallel and Distributed Systems, Shanghai Jiao Tong University*

[Effectively Mitigating I/O Inactivity in vCPU Scheduling](https://www.usenix.org/conference/atc18/presentation/jia)

Weiwei Jia, *The University of Hong Kong, New Jersey Institute of Technology;* Cheng Wang and Xusheng Chen, *The University of Hong Kong;* Jianchen Shan and Xiaowei Shang, *New Jersey Institute of Technology;* Heming Cui, *The University of Hong Kong;* Xiaoning Ding, *New Jersey Institute of Technology;* Luwei Cheng, *Facebook;* Francis C. M. Lau and Yuexuan Wang, *The University of Hong Kong;* Yuangang Wang, *Huawei*

[Placement of Virtual Containers on NUMA systems: A Practical and Comprehensive Model](https://www.usenix.org/conference/atc18/presentation/funston)

Justin Funston, Maxime Lorrillere, and Alexandra Fedorova, *University of British Columbia;* Baptiste Lepers, *EPFL;* David Vengerov and Jean-Pierre Lozi, *Oracle Labs;*Vivien Quéma, *IMAG*

[Getting to the Root of Concurrent Binary Search Tree Performance](https://www.usenix.org/conference/atc18/presentation/arbel-raviv)

Maya Arbel-Raviv, *Technion;* Trevor Brown, *IST Austria;* Adam Morrison, *Tel Aviv University*

[TerseCades: Efficient Data Compression in Stream Processing](https://www.usenix.org/conference/atc18/presentation/pekhimenko)

Gennady Pekhimenko, *University of Toronto;* Chuanxiong Guo, *Bytedance Inc.;* Myeongjae Jeon, *Microsoft Research;* Peng Huang, *Johns Hopkins University;* Lidong Zhou, *Microsoft Research*

[NanoLog: A Nanosecond Scale Logging System](https://www.usenix.org/conference/atc18/presentation/yang-stephen)

Stephen Yang, Seo Jin Park, and John Ousterhout, *Stanford University*

[Model Governance: Reducing the Anarchy of Production ML](https://www.usenix.org/conference/atc18/presentation/sridhar)

Vinay Sridhar, Sriram Subramanian, Dulcardo Arteaga, Swaminathan Sundararaman, Drew Roselli, and Nisha Talagala, *ParallelM*

[Fine-grained consistency for geo-replicated systems](https://www.usenix.org/conference/atc18/presentation/li-cheng)

Cheng Li, *University of Science and Technology of China;* Nuno Preguica, *NOVA LINCS & FCT, Univ. NOVA de Lisboa;* Rodrigo Rodrigues, *INESC-ID & Instituto Superior Técnico, Universidade de Lisboa*

[Log-Free Concurrent Data Structures](https://www.usenix.org/conference/atc18/presentation/david)

Tudor David, *IBM Research, Zurich;* Aleksandar Dragojevic, *MSR Cambridge;* Rachid Guerraoui and Igor Zablotchi, *EPFL*

[Stable and Consistent Membership at Scale with Rapid](https://www.usenix.org/conference/atc18/presentation/suresh)

Lalith Suresh, Dahlia Malkhi, and Parikshit Gopalan, *VMware Research;* Ivan Porto Carreiro, *One Concern;* Zeeshan Lokhandwala, *VMware*

[On Smart Query Routing: For Distributed Graph Querying with Decoupled Storage](https://www.usenix.org/conference/atc18/presentation/khan)

Arijit Khan, *Nanyang Technological University, Singapore;* Gustavo Segovia, *ETH Zurich, Switzerland;* Donald Kossmann, *Microsoft Research, Redmond, USA*

[Locality-Aware Software Throttling for Sparse Matrix Operation on GPUs](https://www.usenix.org/conference/atc18/presentation/chen-yanhao)

Yanhao Chen and Ari B. Hayes, *Rutgers University;* Chi Zhang, *University of Pittsburgh;* Timothy Salmon and Eddy Z. Zhang, *Rutgers University*

[Accelerating PageRank using Partition-Centric Processing](https://www.usenix.org/conference/atc18/presentation/lakhotia)

Kartik Lakhotia, *University of Southern California;* Rajgopal Kannan, *US Army Research Lab;* Viktor Prasanna, *University of Southern California*

[CGraph: A Correlations-aware Approach for Efficient Concurrent Iterative Graph Processing](https://www.usenix.org/conference/atc18/presentation/zhang-yu)

Yu Zhang, Xiaofei Liao, Hai Jin, and Lin Gu, *Huazhong University of Science and Technology;* Ligang He, *University of Warwick;* Bingsheng He, *National University of Singapore;* Haikun Liu, *Huazhong University of Science and Technology*

[Don't share, Don't lock: Large-scale Software Connection Tracking with Krononat](https://www.usenix.org/conference/atc18/presentation/andre)

Fabien André, Stéphane Gouache, Nicolas Le Scouarnec, and Antoine Monsifrot, *Technicolor*

[Accurate Timeout Detection Despite Arbitrary Processing Delays](https://www.usenix.org/conference/atc18/presentation/ma-sixiang)

Sixiang Ma and Yang Wang, *The Ohio State University*

[Improving Service Availability of Cloud Systems by Predicting Disk Error](https://www.usenix.org/conference/atc18/presentation/xu-yong)

Yong Xu and Kaixin Sui, *Microsoft Research, China;* Randolph Yao, *Microsoft Azure, USA;* Hongyu Zhang, *The University of Newcastle, Australia;* Qingwei Lin, *Microsoft Research, China;* Yingnong Dang, *Microsoft Azure, USA;* Peng Li, *Nankai University, China;* Keceng Jiang, Wenchi Zhang, and Jian-Guang Lou, *Microsoft Research, China;*Murali Chintalapati, *Microsoft Azure, USA;* Dongmei Zhang, *Microsoft Research, China*

[RAFI: Risk-Aware Failure Identification to Improve the RAS in Erasure-coded Data Centers](https://www.usenix.org/conference/atc18/presentation/fang)

Juntao Fang, *Wuhan National Laboratory for Optoelectronics, Huazhong University of Sci. and Tech.;* Shenggang Wan, *School of Computer Science and Technology, Huazhong University of Sci. and Tech.;* Xubin He, *Department of Computer and Information Sciences, Temple University*

[Siphon: Expediting Inter-Datacenter Coflows in Wide-Area Data Analytics](https://www.usenix.org/conference/atc18/presentation/liu)

Shuhao Liu, Li Chen, and Baochun Li, *University of Toronto*

[PerfIso: Performance Isolation for Commercial Latency-Sensitive Services](https://www.usenix.org/conference/atc18/presentation/iorgulescu)

Călin Iorgulescu, *EPFL;* Reza Azimi, *Brown University;* Youngjin Kwon, *U. Texas at Austin;* Sameh Elnikety, Manoj Syamala, and Vivek Narasayya, *Microsoft Research;*Herodotos Herodotou, *Cyprus University of Technology;* Paulo Tomita, Alex Chen, Jack Zhang, and Junhua Wang, *Microsoft Bing*

[On the diversity of cluster workloads and its impact on research results](https://www.usenix.org/conference/atc18/presentation/amvrosiadis)

George Amvrosiadis, Jun Woo Park, Gregory R. Ganger, and Garth A. Gibson, *Carnegie Mellon University;* Elisabeth Baseman and Nathan DeBardeleben, *Los Alamos National Laboratory*

[SLAOrchestrator: Reducing the Cost of Performance SLAs for Cloud Data Analytics](https://www.usenix.org/conference/atc18/presentation/ortiz)

Jennifer Ortiz, Brendan Lee, and Magdalena Balazinska, *University of Washington;* Johannes Gehrke, *Microsoft;* Joseph L. Hellerstein, *eScience Institute*

[Spindle: Informed Memory Access Monitoring](https://www.usenix.org/conference/atc18/presentation/wang-haojie)

Haojie Wang, *Tsinghua University, Qatar Computing Research Institute;* Jidong Zhai, *Tsinghua University;* Xiongchao Tang, *Tsinghua University, Qatar Computing Research Institute;* Bowen Yu, *Tsinghua University;* Xiaosong Ma, *Qatar Computing Research Institute;* Wenguang Chen, *Tsinghua University*

[Touchstone: Generating Enormous Query-Aware Test Databases](https://www.usenix.org/conference/atc18/presentation/li-yuming)

Yuming Li and Rong Zhang, *East China Normal University;* Xiaoyan Yang and Zhenjie Zhang, *Singapore R&D, Yitu Technology Ltd.;* Aoying Zhou, *East China Normal University*

[DSAC: Effective Static Analysis of Sleep-in-Atomic-Context Bugs in Kernel Modules](https://www.usenix.org/conference/atc18/presentation/bai)

Jia-Ju Bai and Yu-Ping Wang, *Tsinghua University;* Julia Lawall, *Sorbonne Université/Inria/LIP6;* Shi-Min Hu, *Tsinghua University*

[Coccinelle: 10 Years of Automated Evolution in the Linux Kernel](https://www.usenix.org/conference/atc18/presentation/lawall)

Julia Lawall and Gilles Muller, *Sorbonne University/Inria/LIP6*

[Albis: High-Performance File Format for Big Data Systems](https://www.usenix.org/conference/atc18/presentation/trivedi)

Animesh Trivedi, Patrick Stuedi, Jonas Pfefferle, Adrian Schuepbach, and Bernard Metzler, *IBM Research, Zurich*

[Litz: Elastic Framework for High-Performance Distributed Machine Learning](https://www.usenix.org/conference/atc18/presentation/qiao)

Aurick Qiao, *Petuum, Inc. and Carnegie Mellon University;* Abutalib Aghayev, *Carnegie Mellon University;* Weiren Yu, *Petuum, Inc. and Beihang University;* Haoyang Chen and Qirong Ho, *Petuum, Inc.;* Garth A. Gibson, *Carnegie Mellon University and Vector Institute;* Eric P. Xing, *Petuum, Inc. and Carnegie Mellon University*

[Fast and Concurrent RDF Queries using RDMA-assisted GPU Graph Exploration](https://www.usenix.org/conference/atc18/presentation/wang-siyuan)

Siyuan Wang, Chang Lou, Rong Chen, and Haibo Chen, *Shanghai Jiao Tong University*

[MDev-NVMe: A NVMe Storage Virtualization Solution with Mediated Pass-Through](https://www.usenix.org/conference/atc18/presentation/peng)

Bo Peng, *Shanghai Jiao Tong University, Intel;* Haozhong Zhang, *Intel;* Jianguo Yao, *Shanghai Jiao Tong University;* Yaozu Dong, *Intel;* Yu Xu and Haibing Guan, *Shanghai Jiao Tong University*

[AutoSSD: an Autonomic SSD Architecture](https://www.usenix.org/conference/atc18/presentation/kim)

Bryan S. Kim, *Seoul National University;* Hyun Suk Yang, *Hongik University;* Sang Lyul Min, *Seoul National University*

[Geriatrix: Aging what you see and what you don’t see. A file system aging approach for modern storage systems](https://www.usenix.org/conference/atc18/presentation/kadekodi)

Saurabh Kadekodi, Vaishnavh Nagarajan, and Gregory R. Ganger, *Carnegie Mellon University;* Garth A. Gibson, *Carnegie Mellon University, Vector Institute*

[Can’t We All Get Along? Redesigning Protection Storage for Modern Workloads](https://www.usenix.org/conference/atc18/presentation/allu)

Yamini Allu, Fred Douglis, Mahesh Kamat, Ramya Prabhakar, Philip Shilane, and Rahul Ugale, *Dell EMC*

[STMS: Improving MPTCP Throughput Under Heterogeneous Networks](https://www.usenix.org/conference/atc18/presentation/shi)

Hang Shi and Yong Cui, *Tsinghua University;* Xin Wang, *Stony Brook University;* Yuming Hu and Minglong Dai, *Tsinghua University;* Fanzhao Wang and Kai Zheng, *Huawei Technologies*

[Pantheon: the training ground for Internet congestion-control research](https://www.usenix.org/conference/atc18/presentation/yan-francis)

Francis Y. Yan, Jestin Ma, and Greg D. Hill, *Stanford University;* Deepti Raghavan, *Massachusetts Institute of Technology;* Riad S. Wahby, Philip Levis, and Keith Winstein, *Stanford University*  
***Awarded Best Paper!***

[ClickNF: a Modular Stack for Custom Network Functions](https://www.usenix.org/conference/atc18/presentation/gallo)

Massimo Gallo and Rafael Laufer, *Nokia Bell Labs*

[Selecta: Heterogeneous Cloud Storage Configuration for Data Analytics](https://www.usenix.org/conference/atc18/presentation/klimovic-selecta)

Ana Klimovic, *Stanford University;* Heiner Litz, *UC Santa Cruz;* Christos Kozyrakis, *Stanford University*

[Remote regions: a simple abstraction for remote memory](https://www.usenix.org/conference/atc18/presentation/aguilera)

Marcos K. Aguilera, Nadav Amit, Irina Calciu, Xavier Deguillard, Jayneel Gandhi, Stanko Novakovic, Arun Ramanathan, Pratap Subrahmanyam, Lalith Suresh, Kiran Tati, Rajesh Venkatasubramanian, and Michael Wei, *VMware*

[Understanding Ephemeral Storage for Serverless Analytics](https://www.usenix.org/conference/atc18/presentation/klimovic-serverless)

Ana Klimovic, Yawen Wang, and Christos Kozyrakis, *Stanford University;* Patrick Stuedi, Jonas Pfefferle, and Animesh Trivedi, *IBM Research*

[Solar: Towards a Shared-Everything Database on Distributed Log-Structured Storage](https://www.usenix.org/conference/atc18/presentation/zhu)

Tao Zhu, *East China Normal University;* Zhuoyue Zhao and Feifei Li, *University of Utah;* Weining Qian and Aoying Zhou, *East China Normal University;* Dong Xie and Ryan Stutsman, *University of Utah;* Haining Li, *Bank of Communications;* Huiqi Hu, *East China Normal University; Bank of Communications*

[Toward Coordination-free and Reconfigurable Mixed Concurrency Control](https://www.usenix.org/conference/atc18/presentation/tang)

Dixin Tang and Aaron J. Elmore, *University of Chicago*

[Scaling Hardware Accelerated Network Monitoring to Concurrent and Dynamic Queries With \*Flow](https://www.usenix.org/conference/atc18/presentation/sonchack)

John Sonchack, *University of Pennsylvania;* Oliver Michel, *University of Colorado Boulder;* Adam J. Aviv, *United States Naval Academy;* Eric Keller, *University of Colorado Boulder;* Jonathan M. Smith, *University of Pennsylvania*

[Applying Hardware Transactional Memory for Concurrency-Bug Failure Recovery in Production Runs](https://www.usenix.org/conference/atc18/presentation/chen-yuxi)

Yuxi Chen, Shu Wang, and Shan Lu, *University of Chicago;* Karthikeyan Sankaralingam, *University of Wisconsin — Madison*

[Tailwind: Fast and Atomic RDMA-based Replication](https://www.usenix.org/conference/atc18/presentation/taleb)

Yacine Taleb, *Univ Rennes, Inria, CNRS, IRISA;* Ryan Stutsman, *University of Utah;* Gabriel Antoniu, *Univ Rennes, Inria, CNRS, IRISA;* Toni Cortes, *BSC, UPC*

[On Fault Tolerance, Locality, and Optimality in Locally Repairable Codes](https://www.usenix.org/conference/atc18/presentation/kolosov)

Oleg Kolosov, *School of Electrical Engineering, Tel Aviv University;* Gala Yadgar, *Computer Science Department, Technion and School of Electrical Engineering, Tel Aviv University;* Matan Liram, *Computer Science Department, Technion;* Itzhak Tamo, *School of Electrical Engineering, Tel Aviv University;* Alexander Barg, *Department of ECE/ISR, University of Maryland*

[TxFS: Leveraging File-System Crash Consistency to Provide ACID Transactions](https://www.usenix.org/conference/atc18/presentation/hu)

Yige Hu, Zhiting Zhu, Ian Neal, Youngjin Kwon, and Tianyu Cheng, *The University of Texas at Austin;* Vijay Chidambaram, *The University of Texas at Austin and VMware Research;* Emmett Witchel, *The University of Texas at Austin*  
***Awarded Best Paper!***

[Towards Better Understanding of Black-box Auto-Tuning: A Comparative Analysis for Storage Systems](https://www.usenix.org/conference/atc18/presentation/cao)

Zhen Cao, *Stony Brook University;* Vasily Tarasov, *IBM Research - Almaden;* Sachin Tiwari and Erez Zadok, *Stony Brook University*

[HeavyKeeper: An Accurate Algorithm for Finding Top-k Elephant Flows](https://www.usenix.org/conference/atc18/presentation/gong)

Junzhi Gong, Tong Yang, Haowei Zhang, and Hao Li, *Peking University;* Steve Uhlig, *Queen Mary, University of London;* Shigang Chen, *University of Florida;* Lorna Uden, *Staffordshire University;* Xiaoming Li, *Peking University*

[SAND: Towards High-Performance Serverless Computing](https://www.usenix.org/conference/atc18/presentation/akkus)

Istemi Ekin Akkus, Ruichuan Chen, Ivica Rimac, Manuel Stein, Klaus Satzke, Andre Beck, Paarijaat Aditya, and Volker Hilt, *Nokia Bell Labs*

[Cavs: An Efficient Runtime System for Dynamic Neural Networks](https://www.usenix.org/conference/atc18/presentation/xu-shizen)

Shizhen Xu, *Carnegie Mellon University, Tsinghua University;* Hao Zhang, Graham Neubig, and Wei Dai, *Carnegie Mellon University, Petuum Inc.;* Jin Kyu Kim, *Carnegie Mellon University;* Zhijie Deng, *Tsinghua University;* Qirong Ho, *Petuum Inc.;* Guangwen Yang, *Tsinghua University;* Eric P. Xing, *Petuum Inc.*

[DeepCPU: Serving RNN-based Deep Learning Models 10x Faster](https://www.usenix.org/conference/atc18/presentation/zhang-minjia)

Minjia Zhang, Samyam Rajbhandari, Wenhan Wang, and Yuxiong He, *Microsoft AI and Research*

[Closing the Performance Gap Between Volatile and Persistent Key-Value Stores Using Cross-Referencing Logs](https://www.usenix.org/conference/atc18/presentation/huang)

Yihe Huang, *Harvard University;* Matej Pavlovic, *EPFL;* Virendra Marathe, Margo Seltzer, Tim Harris, and Steve Byan, *Oracle Labs*

[Metis: Robustly Tuning Tail Latencies of Cloud Systems](https://www.usenix.org/conference/atc18/presentation/li-zhao)

Zhao Lucis Li, *USTC;* Chieh-Jan Mike Liang, *Microsoft Research;* Wenjia He, *USTC;* Lianjie Zhu, Wenjun Dai, and Jin Jiang, *Microsoft Bing Ads;* Guangzhong Sun, *USTC*

[Redesigning LSMs for Nonvolatile Memory with NoveLSM](https://www.usenix.org/conference/atc18/presentation/kannan)

Sudarsun Kannan, *University of Wisconsin-Madison;* Nitish Bhat and Ada Gavrilovska, *Georgia Tech;* Andrea Arpaci-Dusseau and Remzi Arpaci-Dusseau, *University of Wisconsin-Madison*

[HashKV: Enabling Efficient Updates in KV Storage via Hashing](https://www.usenix.org/conference/atc18/presentation/chan)

Helen H. W. Chan, *The Chinese University of Hong Kong;* Yongkun Li, *University of Science and Technology of China;* Patrick P. C. Lee, *The Chinese University of Hong Kong;* Yinlong Xu, *University of Science and Technology of China*