

SPAA 2021 Accepted Papers

XiaoJun Dong, [Yan Gu](#), [Yihan Sun](#) and [Yunming Zhang](#). Efficient Stepping Algorithms and Implementations for Parallel Shortest Paths

Vijaya Ramachandran and Elaine Shi. Data Oblivious Algorithms for Multicores

Amartya Shankha Biswas, Michal Dory, Mohsen Ghaffari, Slobodan Mitrović and Yasamin Nazari. Massively Parallel Algorithms for Distance Approximation and Spanners

Sebastian Brandt, Barbara Keller, Joel Rybicki, [Jukka Suomela](#) and Jara Uitto. Efficient Load-Balancing through Distributed Token Dropping

Janardhan Kulkarni, Stefan Schmid and Pawel Schmidt. Scheduling Opportunistic Links in Two-Tiered Reconfigurable Datacenters

Aleksander Figiel, Leon Kellerhals, Rolf Niedermeier, [Matthias Rost](#), [Stefan Schmid](#) and Philipp Zschoche. Optimal Virtual Network Embeddings for Tree Topologies

[Keren Censor-Hillel](#), Victor Kolobov and Gregory Schwartzman. Finding Subgraphs in Highly Dynamic Networks

Susanne Albers and Jens Quedenfeld. Algorithms for Right-Sizing Heterogeneous Data Centers

[Sungjin Im](#), Ravi Kumar, Mahshid Montazer Qaem and Manish Purohit. Non-Clairvoyant Scheduling with Predictions

Gal Sela and Erez Petrank. Durable Queues: The Second Amendment

Yi-Jun Chang, Ran Duan and Shunhua Jiang. Near-Optimal Time-Energy Trade-Offs for Deterministic Leader Election

[Mohammadtaghi Hajiaghayi](#), [Hamed Saleh](#), [Saeed Seddighin](#) and [Xiaorui Sun](#). String Matching with Wildcards in the Massively Parallel Computation Model

[Barun Gorain](#), [Avery Miller](#) and [Andrzej Pelc](#). Four Shades of Deterministic Leader Election in Anonymous Networks

Mozhengfu Liu and Xueyan Tang. Analysis of Busy-Time Scheduling on Heterogeneous Machines

Grzegorz Kwasniewski, Tal Ben-Nun, Lukas Gianinazzi, Alexandru Calotoiu, Timo Schneider, Alexandros Nikolaos Ziogas, Maciej Besta and Torsten Hoefler. Pebbles, Graphs, and a Pinch of Combinatorics: Towards Tight I/O Lower Bounds for Statically Analyzable Programs

[Daniel Anderson](#) and [Guy Blelloch](#). Parallel Minimum Cuts in $O(m \log^2(n))$ Work and Low Depth

Keren Censor-Hillel, Dean Leitersdorf and Volodymyr Polosukhin. On Sparsity Awareness in Distributed Computations

[Daniel Anderson](#), [Guy Blelloch](#), Anubhav Baweja and [Umut Acar](#). Efficient Parallel Self-adjusting Computation

Lukas Gianinazzi, Maciej Besta, Yannick Schaffner and Torsten Hoefler. Parallel Algorithms for Finding Large Cliques in Sparse Graphs

Nikhil Bansal, Seffi Naor and Ohad Talmon. Efficient Online Weighted Multi-Level Paging

Zafar Ahmad, Rezaul Chowdhury, Rathish Das, Pramod Ganapathi, Aaron Gregory and Mohammad Javanmard. Low-Depth Parallel Algorithms for the Binary-Forking Model

Zafar Ahmad, Rezaul Chowdhury, Rathish Das, Pramod Ganapathi, Aaron Gregory and Yimin Zhu. Fast Stencil Computations using Fast Fourier Transforms

Yannic Maus. Distributed Graph Coloring Made Easy

Dave Dice and Alex Kogan. Hemlock : Compact and Scalable Mutual Exclusion

Andrés López-Martínez, [Sagnik Mukhopadhyay](#) and [Danupon Nanongkai](#). Work-Optimal Parallel Minimum Cuts for Non-Sparse Graphs

Wilhelm Friedemann, Tobias Friedrich, Hans Gawendowicz, Pascal Lenzner, Anna Melnichenko, Jannik Peters, Daniel Stephan and Michael Vaichenker. Efficiency and Stability in Euclidean Network Design

Seth Gilbert, Uri Meir, [Ami Paz](#) and Gregory Schwartzman. On the Complexity of Load Balancing in Dynamic Networks

Michael Elkin and Shaked Matar. Deterministic PRAM Approximate Shortest Paths in Polylogarithmic Time and Slightly Super-Linear Work.

Nikita Koval, Alexander Fedorov and [Dan Alistarh](#). A Scalable Concurrent Algorithm for Dynamic Connectivity

Dariusz Kowalski and Miguel A. Mosteiro. Supervised Consensus in Anonymous Dynamic Networks

Konstantinos Dogeas, Evgenis Bampis, Fanny Pascual, Giorgio Lucarelli and Alexander Kononov. Speed-scaling with explorable uncertainty

James Aimone, Yang Ho, Ojas Parekh, [Cynthia Phillips](#), [Ali Pinar](#), William Severa and Yipu Wang. Provable Advantages for Graph Algorithms in Spiking Neural Networks

Michael Bender, Abhishek Bhattacharjee, Alex Conway, Martin Farach-Colton, Rob Johnson, Sudarsun Kannan, William Kuszmaul, Nirjhar Mukherjee, Don Porter, Guido Tagliavini, Janet Vorobyeva and Evan West. Paging and the Address Translation Problem

Yifan Xu, Kunal Agrawal and I-Ting Angelina Lee. Efficient Parallel Determinacy Race Detection for Structured Futures

Hongbo Kang, Phillip B. Gibbons, Guy E. Blelloch, Laxman Dhulipala, Yan Gu and Charles McGuffey. The Processing-in-Memory Model

SPAA 2021 Accepted Brief Announcement

Gali Sheffi, Maurice Herlihy and Erez Petrank. VBR: Version Based Reclamation

Nathan Beckmann, [Phillip B. Gibbons](#) and Charles McGuffey. Block-Granularity-Aware Caching

Sakib Chowdhury and [Wojciech Golab](#). Brief Announcement: A Scalable Recoverable Skip List for Persistent Memory

Diego Cepeda and Wojciech Golab. PHPRX: An Efficient Hash Table for Persistent Memory

Adam Gancorz, Tomasz Jurdzinski, Mateusz Lewko and [Andrzej Pelc](#). Deterministic Size Discovery and Topology Recognition in Radio Networks with Short Labels

Ramtin Afshar, Michael T. Goodrich, Pedro Matias and Martha C. Osegueda. Parallel Network Mapping Algorithms

David Gureya, João Barreto and Vladimir Vlassov. BALM: QoS-Aware Memory Bandwidth Partitioning for Multi-Socket Cloud Nodes

Evgeniy Feder, Ichha Rathod, Punit Shyamsukha, Robert Sama, Vitaly Aksenov, [Iosif Salem](#) and [Stefan Schmid](#). Lazy Self-Adjusting Bounded-Degree Networks for the Matching Model

Yifan Xu, Anchengcheng Zhou, Grace Yin, Kunal Agrawal, I-Ting Angelina Lee and Tao B. Schardl. Efficient Access History for Race Detection

Yaodong Sheng, Ahmed Hassan and Michael Spear. Semantic Conflict Detection for Transactional Data Structure Libraries

[Andrew Berns](#). Network Scaffolding for Efficient Stabilization of the Chord Overlay Network

Rui Li, Yufan Xu, Aravind Sukumaran-Rajam, Atanas Rountev and P Sadayappan. Efficient distributed algorithms for Convolutional Neural Networks

Subhash Bhagat and [Anisur Rahaman Molla](#). Brief Announcement: Min-Max Gathering of Oblivious Robots