SPAA 2020 Accepted Papers

Regular Papers:

A Massively Parallel Algorithm for Minimum Weight Vertex Cover. Mohsen Ghaffari, Ce Jin and Daan Nilis.


Approximation Algorithms for Scheduling with Class Constraints. Klaus Jansen, Alexandra Lassota and Marten Maack.


Closing the Gap Between Cache-oblivious and Cache-adaptive Analysis. Michael Bender, Rezaul Chowdhury, Rathish Das, Rob Johnson, William Kuszmaul, Andrea Lincoln, Quanquan Liu, Jayson Lynch and Helen Xu.

Commitment and slack for online load maximization. Samin Jamalabadi, Chris Schwiegelshohn and Uwe Schwiegelshohn.

Communication vs synchronisation in parallel string comparison. Alexander Tiskin.

Connected Components on a PRAM in Log Diameter Time. Sixue Liu, Robert Tarjan and Peilin Zhong.


Contention Resolution with Message Deadlines. Kunal Agrawal, Michael Bender, Jeremy Fineman, Seth Gilbert and Maxwell Young.


Efficient Local Medium Access. Paweł Garnarek, Tomasz Jurdziński and Dariusz Kowalski.

Fast Byzantine Agreement for Permissioned Distributed Ledgers. Thomas Locher.


Graph Sparsification for Derandomizing Massively Parallel Computation with Low Space. Artur Czumaj, Peter Davies and Merav Parter.

How to Manage High-Bandwidth Memory Automatically. Rathish Das, Kunal Agrawal, Michael Bender, Jonathan Berry, Benjamin Moseley and Cynthia Phillips.


Non-Linear Ski Rental. Boaz Patt-Shamir and Evyatar Yadai.


On the hardness of red-blue pebble games. Pál András Papp and Roger Wattenhofer.


Parallel Load Balancing on Constrained Client-Server Topologies. Andrea Clementi, Emanuele Natale and Isabella Ziccardi.

Parallel Planar Subgraph Isomorphism and Vertex Connectivity. Lukas Gianinazzi and Torsten Hoefler.


Randomized Incremental Convex Hull is Highly Parallel. Guy Blelloch, Yan Gu, Julian Shun and Yihan Sun.

Scheduling Flows on a Switch to Optimize Response Times. Hamidreza Jahanjou, Rajmohan Rajaraman and David Stalfa.


The Append Memory Model: Why BlockDAGs Excel Blockchains. Darya Melnyk and Roger Wattenhofer.

The Online Multi-Commodity Facility Location Problem. Jannik Castenow, Björn Feldkord, Till Knollmann, Manuel Malatyali and Friedhelm Meyer Auf der Heide.

The Recoverable Consensus Hierarchy. Wojciech Golab.


Brief Announcements:

Brief Announcement: A Computational Model for Tensor Core Units. Rezaul Chowdhury, Francesco Silvestri and Flavio Vella.


Brief Announcement: A Queueing Network Based Distributed Laplacian Solver. Iqra Altaf Gillani and Amitabha Bagchi.


Brief Announcement: A local constant approximation factor algorithm for minimum dominating set of certain planar graphs. Sharareh Alipour and Amir Jafari.

Brief Announcement: Communication-Efficient Weighted Reservoir Sampling from Fully Distributed Data Streams. Lorenz Hübschle-Schneider and Peter Sanders.


Brief Announcement: Green Paging and Parallel Paging. Enoch Peserico and Michele Scquizzato.

Brief Announcement: How fast can you update your MST? (Dynamic algorithms for cluster computing). Lawrence Li and Seth Gilbert.


Brief Announcement: Lockfree Persistent Homology. Dmitriy Morozov and Arnur Nigmetov.


Brief Announcement: On the Limits of Parallelizing Convolutional Neural Networks on GPUs. Behnam Pourghassemi, Chenghao Zhang, Joo Hwan Lee and Aparna Chandramowlishwaran.


