

Dagstuhl Seminar 21071 (Virtual)
Scalable Data Structures

Monday February 15

Session chair: Gerth Stølting Brodal

15:45	<i>Wonder.me</i>
16:00	One slide presentation + Group picture <i>All participants</i>
17:00	Planar Distance Oracles with Better Time-Space Tradeoffs <i>Seth Pettie</i>
17:30	Succinct, Stable Hash Tables <i>Martin Farach-Colton</i>
18:00	<i>Wonder.me</i>

Session chair: Ian Munro

19:45	<i>Wonder.me</i>
20:00	Parallel Index-Based Structural Graph Clustering and Its Approximation <i>Julian Shun</i>
20:30	Dictionaries et al. <i>Ioana Bercea</i>
21:00	Fully-dynamic Planarity Testing in Polylogarithmic Time (15 min) <i>Eva Rotenberg</i>
21:15	Orientations in Incremental Forests (45 min) <i>Tsvi Kopelowitz</i>
22:00	<i>Wonder.me</i>

Tuesday February 16

Session chair: John Iacono

15:45	<i>Wonder.me</i>
16:00	Approximate Near-Neighbor under the (continuous) Fréchet distance <i>Anne Driemel</i>
16:30	Lazy Search Trees <i>Sebastian Wild</i>
17:00	Random Access in Persistent Strings <i>Inge Li Gørtz</i>
17:30	Parallel Batch-Dynamic Triangle Counting <i>Quanquan Liu</i>
18:00	<i>Wonder.me</i>

Session chair: Ulrich Meyer

19:45	<i>Wonder.me</i>
20:00	Open-Addressing Hashing on GPUs <i>John Owens</i>
20:30	Connecting MapReduce Computations to Realistic Machine Models <i>Peter Sanders</i>
21:00	Parallel SSSP using Lazy Batch Priority Queues <i>Yihan Sun</i>
21:30	Similarity Search with Tensor Core Units <i>Francesco Silvestri</i>
22:00	<i>Wonder.me</i>

Lectures take place at Zoom. We encourage participants to visit Wonder.me 10-15 minutes before a session and following up on a session, to replace the otherwise informal interactions happening during coffee breaks, meals, evenings etc. when at a physical Dagstuhl seminar. All times are Dagstuhl time (CET).

Wednesday February 17

Session chair: Robert Sedgewick

15:45 *Wonder.me*
16:00 **Parallel Batch Dynamic Algorithms**
Guy Blelloch
16:30 **Fully Dynamic Delta+1 - Vertex Coloring in constant time per operation**
Monika Henzinger
17:00 **Open problem session**
18:00 *Wonder.me*

Session chair: John Iacono

19:45 *Wonder.me*
20:00 **Constant-length Labelling Schemes for Deterministic Radio Broadcast**
Faith Ellen
20:30 **Using GPUs to Solve the Maximum Clique Problem**
Afton Noelle Geil
21:00 **Atomic Power in Forks**
Nodari Sitchinava & Riko Jacob
21:30 **SplinterDB: A NVMe Key-Value Store on the Iacono-Patrascu Lower Bound**
Alex Conway
22:00 *Wonder.me*

Thursday February 18

Session chair: Martin Dietzfelbinger

15:45 *Wonder.me*
16:00 **Dynamic Stable Perfect Hashing, Extendable?!**
Guy Even
16:30 **Dictionary look-up with mismatches**
Tatiana Starikovskaya
17:00 **New Techniques for Proving Fine-Grained Average-Case Hardness**
Andrea Lincoln
17:30 **Self-adjusting Trees and Heaps (40 min)**
László Kozma
18:10 *Wonder.me*

Session chair: Markus Nebel

19:45 *Wonder.me*
20:00 **Vector Quotient Filters: Overcoming the Time/Space Trade-Off in Filter Design**
Rob Johnson
20:30 **Fragile Complexity of Adaptive Algorithms**
Rolf Fagerberg
21:00 **Searching Knowledge Graphs with Billions of Edges**
Hannah Bast
22:00 *Wonder.me*