

# Dagstuhl Seminar on Scalable Data Structures (23211)

## SUNDAY (May 21)

18:00 Dinner buffet

## MONDAY (May 22)

07:30 Breakfast

09:00 **Opening & Introductions** (1-slide / 3-minutes per participant)

10:30 Coffee break

11:00 **Guy E. Blelloch**, *Should We Teach Parallelism throughout Undergraduate Algorithm Courses?*

12:15 Lunch

15:30 Coffee & Cake

16:00 **Alexander Conway**, *Iceberg Hashing and Mosaic Pages: A Data-Structural Approach to Faster Virtual Address Translation*

16:35 **Sebastian Wild**, *Quicksort, Timsort, Powersort - Python's new Sorting Algorithm*

17:10 **Quanquan C. Liu**, *Scalable Data Structures for Privacy on Graphs*

18:00 Dinner

## TUESDAY (May 23)

07:30 Breakfast

09:00 **Yihan Sun**, *Parallel Longest Increasing Subsequence and van Emde Boas Trees*

09:30 **Markus E. Nebel**, *Lomuto's Comeback or the Unpredictability of Program Efficiency*

10:00 **Peter Sanders**, *Sliding Block Hashing*

10:30 Coffee break

11:00 **Open problem session**

12:15 Lunch

15:30 Coffee & Cake

16:00 **Shikha Singh**, *Online List Labelling with Predictions*

16:24 **Martin Farach-Colton**, *Simple Hash Tables*

16:48 **Cynthia A. Phillips**, *Write-Optimized Algorithms for Stream Monitoring*

17:12 **Helen Xu**, *Optimizing Search Layouts in Packed Memory Arrays*

17:36 **Kunal Agrawal**, *Using Data Structures within Parallel Algorithms*

18:00 Dinner

### WEDNESDAY (May 24)

- 07:30 Breakfast
- 09:00 **Rasmus Kyng**, *Dynamic Spanners*
- 09:30 **Valerie King**, *Batch Parallel fast Worst Case Dynamic Connectivity*
- 10:00 **Eva Rotenberg**, *Sparsity-Adaptive Dynamic Graph Algorithms*
- 10:30 Coffee break
- 11:00 **Tsvi Kopelowitz**, *The  $k$ -Dyck Edit Distance Problem*
- 11:30 **Robert Tarjan**, *Heaps*
- 12:00 Group picture
- 12:15 Lunch
- 14:00 Hike
- 15:30 Coffee & Cake
- 18:00 Dinner

### THURSDAY (May 25)

- 07:30 Breakfast
- 09:00 **Ioana-Oriana Bercea**, *An Extendable Data Structure for Incremental Stable Perfect Hashing*
- 09:30 **Nodari Sitchinava**, *How to design algorithms for GPUs*
- 10:00 **Inge Li Gørtz**, *Sparse Regular Expressions*
- 10:30 Coffee break
- 11:00 **Seth Pettie**, *Sorting pattern-avoiding permutations and forbidden 0-1 matrices*
- 11:30 **Rob Johnson**, *Maplets and their Application*
- 12:15 Lunch
- 15:30 Coffee & Cake
- 16:00 **Elena Arseneva**, *Morphing Graph Drawings*
- 16:30 **Ian Munro**, *Ordered Majority*
- 17:00 **Eunjin Oh**, *Parameterized algorithm for the planar disjoint paths problem*
- 17:30 **Francesco Silvestri**, *Algorithms for Processing in Memory*
- 18:00 Dinner

### FRIDAY (May 26)

- 07:30 Breakfast
- 09:00 Check-out
- 09:00 **Riko Jacob**, *Sorting with Priced Comparisons: The General, the Bichromatic, and the Universal*
- 09:30 **Nicole Wein**, *Online List Labeling: Breaking the  $\log^2 n$  Barrier*
- 10:00 **Guy Even**, *Dynamic Filters and Retrieval with one Memory Access*
- 10:30 **Justin Dallant**, *Conditional Lower Bounds for Dynamic Geometric Problems*
- 11:00 Coffee break
- 12:15 Lunch