TUESDAY

8:50-9:00 opening remarks

9-10:00 KEYNOTE TALK Towards a Theory of Randomized Shared Memory Algorithms
Philipp Woelfel

10-10:30 coffee break

SESSION 1

10:30-10:50 Symmetry Breaking in the Plane: Rendezvous by Robots with Unknown Attributes
J. Czyzowicz, L. Gasieniec, R. Killick, E. Kranakis

10:50-11:10 Composable computation in discrete chemical reaction networks
E. Severson, D. Haley, D. Doty

11:10-11:30 How to Spread a Rumor: Call Your Neighbors or Take a Walk?
G. Giakkoupis, F. Mallmann-Trenn, H. Saribekyan

11:30-12:00 Efficient size estimation and impossibility of termination in uniform dense population protocols
D. Doty, M. Eftekhari
On Counting the Population Size
P. Berenbrink, D. Kaaser, T. Radzik

12:00-12:20 Self-Stabilizing Leader Election
H. Chen, H. Chen

12:00-12:25 Brief Announcement: Logarithmic Expected-Time Leader Election in Population Protocol Model
Y. Sudo, F. Ooshita, T. Izumi, H. Kakugawa, T. Masuzawa

12:20-12:25 Brief Announcement: On Site Fidelity and the Price of Ignorance in Swarm Robotic Central Place Foraging Algorithms
A. Aggarwal, D. Gupta, G. Fricke, M. Moses

12:30-2:00 LUNCH

SESSION 2

2:00-2:20 Improved Distributed Expander Decomposition and Nearly Optimal Triangle Enumeration
Y. Chang, T. Saranurak

2:20-2:40 Fast Approximate Shortest Paths in the Congested Clique
K. Censor-Hillel, M. Dory, D. Leitersdorf, J. Korhonen

2:40-3:00 Quantum Distributed Algorithm for the All-Pairs Shortest Path Problem in the CONGEST-CLIQUE Model
T. Izumi, F. Le Gall

3:00-3:20 Deterministic Distributed Dominating Set Approximation in the CONGEST Model
J. Deurer, F. Kuhn, Y. Maus
R. Ben-Basat, G. Even, K. Kawarabayashi, G. Schwartzman

3:25-3:55  coffee break

SESSION 3
3:55-4:15  Secure Distributed Computing Made Optimal
M. Parter, E. Yogev
4:15-4:35  With Great Speed Come Small Buffers: Space-Bandwidth Tradeoffs for Routing
A. Miller, B. Patt-Shamir, W. Rosenbaum
4:35-4:55  Plain SINR is Enough!
M. Halldorsson, T. Tonoyan
4:55-5:15  Efficient Multiparty Interactive Coding for Insertions, Deletions, and Substitutions
R. Gelles, Y. Kalai, G. Ramnarayan
5:15-5:20  Brief Announcement: Multiparty Interactive Communication with Private Channels
A. Aggarwal, V. Dani, T. Hayes, J. Saia
S. Li, S. Sahraei, M. Yu, S. Avestimehr, S. Kannan, P. Viswanath
5:25-5:30  Brief Announcement: On Termination of a Flooding Process
W. Hussak, A. Trehan

WEDNESDAY
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9-10am  KEYNOTE TALK Local Computation Algorithms
Ronitt Rubinfeld

10-10:30  coffee break

SESSION 4
10:30-10:50  Optimal Memory-Anonymous Symmetric Deadlock-Free Mutual Exclusion
Z. Aghazadeh, D. Imbs, M. Raynal, G. Taubenfeld, P. Woelfel
10:50-11:10  Constant Amortized RMR Complexity Deterministic Abortable Mutual Exclusion Algorithm for CC and DSM Models
P. Jayanti, S. Jayanti
11:10-11:30  Recoverable Mutual Exclusion with Sub-logarithmic RMR Complexity on CC and DSM machines
P. Jayanti, S. Jayanti, A. Joshi
11:30-11:50  Randomized Concurrent Set Union and Generalized Wake-Up
S. Jayanti, R. Tarjan, E. Boix-Adserà,
11:50-12:10  Strongly Linearizable Implementations of Snapshots and Other Types  
S. Ovens, P. Woelfel

12:10-12:15  Brief Announcement: Fast Concurrent Data Sketches  
A. Rinberg, A. Spiegelman, E. Bortnikov, E. Hillel, I. Keidar, H. Serviansky

12:15-12:20  Brief Announcement: Self-Stabilizing Snapshot Objects for Asynchronous Failure-Prone Networked Systems  
C. Georgiou, O. Lundström, E. Schiller

W. Golab

12:25-12:30  Brief Announcement: How Fast Reads Affect Multi-Valued Register Simulations  
S. Chaudhuri, R. Frank, J. Welch

12:30-2:00 LUNCH

SESSION 5

2:00-2:20  Topological Characterization of Consensus under General Message Adversaries  
T. Nowak, U. Schmid, K. Winkler

2:20-2:40  Can Distributed Uniformity Testing Be Local?  
U. Meir, D. Minzer, R. Oshman

2:40-3:00  Hardness of Distributed Optimization  
N. Bachrach, K. Censor-Hillel, M. Dory, Y. Efron, D. Leitersdorf, A. Paz

3:00-3:20  Broadcast Congested Clique: Planted Cliques and Pseudorandom Generators  
L. Chen, O. Grossman

3:20-3:25  Brief Announcement: Connectivity Lower Bounds in Broadcast Congested Clique  
S. Pai, S. Pemmaraju

3:25-3:30  Brief Announcement: Does Preprocessing Help under Congestion?  
K. Foerster, J. Korhonen, J. Rybicki, S. Schmid

3:30-4:00 coffee break

SESSION 6

4:00-4:20  The distributed complexity of locally checkable problems on paths is decidable  
A. Balliu, S. Brandt, Y. Chang, D. Olivetti, M. Rabie, J. Suomela

4:20-4:40  Hardness of exact distance queries in sparse graphs through hub labeling  
A. Kosowski, P. Uznański, L. Viennot

4:40-5:00  On the Complexity of Distributed Splitting Problems  
P. Bamberger, M. Ghaffari, F. Kuhn, Y. Maus, J. Uitto

5:00-5:20  On the Use of Randomness in Local Distributed Graph Algorithms  
M. Ghaffari, F. Kuhn

5:20-5:25  Brief Announcement: Message Reduction in the LOCAL Model is a Free Lunch  
S. Bitton, T. Izumi, Y. Emek, S. Kutten

5:25-5:30  Brief Announcement: P-SLOCAL-Completeness of Maximum Independent Set Approximation  
Y. Maus

12:30-2:00 LUNCH
THURSDAY
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9-10am  KEYNOTE TALK  Engineering Distributed Systems that We Can Trust (and Also Run)
         Ilya Sergey

10-10:30  coffee break

SESSION 7
10:30-10:50  The Consensus Number of a Cryptocurrency
              R. Guerraoui, P. Kuznetsov, M. Monti, M. Pavlovic, D. Seredinschi
10:50-11:10  Communication Complexity of Byzantine Agreement, Revisited
              I. Abraham, T. Chan, D. Dolev, K. Nayak, R. Pass, L. Ren, E. Shi
11:10-11:30  Exact Byzantine Consensus on Undirected Graphs under Local Broadcast Model
              M. Khan, S. Naqvi, N. Vaidya
11:30-11:50  Asymptotically Optimal Validated Asynchronous Byzantine Agreement
              I. Abraham, D. Malkhi, A. Spiegelman
11:50-12:10  HotStuff: BFT Consensus with Linearity and Responsiveness
              M. Yin, I. Abraham, G. Gueta, D. Malkhi, M. Reiter
12:10-12:30  Fault Tolerant Gradient Clock Synchronization
              J. Bund, C. Lenzen, W. Rosenbaum
12:30-12:35  Brief Announcement: Bootstrapping Public Blockchains Without A Trusted Setup
              A. Aggarwal, M. Mohavedi, J. Saia, M. Zamani

12:35-2:05  LUNCH

SESSION 8
2:05-2:35  Hardness of minimal symmetry breaking in distributed computing
          A. Balliu, J. Hirvonen, D. Olivetti, J. Suomela
          An Automatic Speedup Theorem for Distributed Problems
          S. Brandt
2:35-2:55  A Sharp Threshold Phenomenon for the Distributed Complexity of the Lovász Local Lemma
          S. Brandt, Y. Maus, J. Uitto

SESSION 9
2:55-3:15  Reconfigurable Atomic Transaction Commit
           M. Bravo, A. Gotsman
3:15-3:35  The Impact of RDMA on Agreement
           M. Aguilera, N. Ben-David, R. Guerraoui, V. Marathe, I. Zablotschi
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| 3:35-3:40 | Brief Announcement: Hyaline: Fast and Transparent Lock-Free Memory Reclamation  
R. Nikolaev, B. Ravindran |
| 3:40-3:45 | Brief Announcement: Layering Data Structures over Skip Graphs for Increased NUMA Locality  
S. Thomas, H. Mendes |
| 3:45-4:15 | coffee break |

**SESSION 10**

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| 4:15-4:35 | Partially Replicated Causally Consistent Shared Memory: Lower Bounds and An Algorithm  
Z. Xiang, N. Vaidya |
| 4:35-4:55 | Vorpal: Vector Clock Ordering For Large Persistent Memory Systems  
K. Korgaonkar, J. Izrailevitz, J. Zhao, S. Swanson |
| 4:55-5:15 | On the parallels between Paxos and Raft, and how to port optimizations  
Z. Wang, C. Zhao, S. Mu, H. Chen, J. Li |
| 5:15-5:20 | Brief Announcement: Linearizable State Machine Replication of State-Based CRDTs without Logs  
J. Skrzypczak, F. Schintke, T. Schütt |
| 5:20-5:25 | Brief Announcement: On mixing eventual and strong consistency: Bayou revisited  
M. Kokociński, T. Kobus, P. Wojciechowski |

**FRIDAY**

**SESSION 11**

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| 9:00-9:20 | Massively Parallel Algorithms for Finding Well-Connected Components in Sparse Graphs  
S. Assadi, X. Sun, O. Weinstein |
| 9:20-9:40 | The Complexity of \((\Delta + 1)\) Coloring in Congested Clique, Massively Parallel Computation, and Centralized Local Computation  
Y. Chang, M. Fischer, M. Ghaffari, J. Uitto, Y. Zheng |
| 9:40-10:00 | Massively Parallel Computation of Matching and MIS in Sparse Graphs  
S. Behnezhad, S. Brandt, M. Derakhshan, M. Fischer, M. Hajiaghayi, R. Karp, J. Uitto |
| 10:00-10:20 | Weighted Matchings via Unweighted Augmentations  
B. Gamlath, S. Kale, S. Mitrović, O. Svensson |
| 10:20-10:50 | coffee break |
| 10:50-11:10 | Implementing Mediators with Asynchronous Cheap Talk |
I. Abraham, D. Dolev, I. Geffner, J. Halpern
11:10-11:30 Distributed Minimum Degree Spanning Trees
M. Dinitz, M. Halldorsson, T. Izumi, C. Newport
11:30-11:50 Improved Distributed Approximations for Minimum-Weight
Two-Edge-Connected Spanning Subgraph
M. Dory, M. Ghaffari
11:50-12:10 Near-Additive Spanners In Low Polynomial Deterministic CONGEST Time
M. Elkin, S. Matar
12:10-12:30 A Trivial Yet Optimal Solution to Vertex Fault Tolerant Spanners
G. Bodwin, S. Patel
12:30-12:35 closing remarks