

Dagstuhl Seminar
Learned Predictions for Data Structures and Running Time
2025

Sunday (April 27)

18:00 - 19.30 Dinner buffet

Monday (April 28)

07.30 – 09.00	Breakfast
09:00 – 10:00	Welcome and Round of Introduction
10:00 – 10:30	Coffee break
10:30 – 11:00	Sam McCauley: Learned Data Structures via Decomposition
11:00 – 11:30	Christian Coester: Sorting and Priority Queues with Predictions
11:30 – 12:00	Quanquan Liu: Learning Link Deletions
12:15 – 13:30	Lunch
13:30 – 15:30	Collaboration Time
15:30 – 16:00	Coffee & Cake
16:00 – 17:00	Ben Moseley: Machine Learning for Better Algorithms
17:00 – 17:30	Jan van den Brand: Dynamic Algebraic Algorithms with Predictions
17:30 - 18:00	Sebastian Wild: Beyond-worst-case Data Structures
18:00 – 19:30	Dinner

Tuesday (April 29)

07.30 – 09.00	Breakfast
09:00 – 10:00	Ellen Vitercik: Machine learning for online matching and integer programming
10:00 – 10:30	Coffee break
10:30 – 11:30	Ali Vakilian: Streaming algorithms with predictions
11:30 – 12:00	Antonios Antoniadis: Approximation Algorithms with Predictions
12:15 – 13:30	Lunch
13:30 – 15:30	Collaboration Time
15:30 – 16:00	Coffee & Cake: Industry Research Discussion with Sergei Vassilvitskii
16:00 – 17:00	Debmalya Panigrahi
17:00 – 17:30	Mike Dinitz: Ski Rental With Distributional Predictions.
17:30 – 18:00	Christoph Durr: Scenario-Based Robust Optimization of Tree Structures
18:00 – 19:30	Dinner

Wednesday (April 30)

07.30 – 09.00	Breakfast
09:00 – 10:00	Bill Kuszmaul: Faster Data Structures via History Independence
10:00 – 10:30	Coffee break
10:30 – 11:00	Silvio: Data Driven Solution Portfolios
11.00 – 12.00	Open Problems and Working groups
12.00	Group picture
12:15 – 13:30	Lunch
13:45	Meet for Hike
15:30 – 16:00	Coffee & Cake
18:00 – 19:30	Dinner

Thursday (May 1)

07.30 – 09.00	Breakfast
09:00 – 09:30	Paolo Ferragina: From compression to learning, one more step in data structure design.
09:30 – 10:00	Adam Polak: From heatmaps to TSP tours
10:00 – 10:30	Coffee break
10:30 – 12:15	Working Groups
12:15 – 13:30	Lunch
13:30 – 15:30	Collaboration Time
15:30 – 16:00	Coffee & Cake Round Table on Women+ in TCS
16:00 – 17:30	Working Group Check-in
18:00 – 19:30	Dinner

Friday (May 2)

07.30 – 09.00	Breakfast
09.00	Checkout
09:00 – 09:30	Hanna Komlos: Nearly Optimal List Labeling
09:30 – 10:00	László Kozma: Adaptivity to Pattern Avoidance
10:00 – 10:30	Coffee break
10:30 – 11:00	Ola Svensson: Speeding Up Bellman Ford via Minimum Violation Permutations
11:00 – 11:30	Round Table
12:15 – 13:30	Lunch