

Dagstuhl Seminar 21171 (25-30 April 2021): “Temporal Graphs: Structure, Algorithms, Applications”

Schedule of Talks and Activities:

Monday 26 April:

2:00 – 3:30pm: Welcome, Organization, Introduction of participants

3:30 – 4:00pm: Break gather.town

4:00 – 5:30pm: Multistage problems

Bruno Escoffier: Approximation algorithms for some multistage graph problems

Till Fluschnik: Multistage graph problems

Frank Kammer: Multistage graph problems on a global budget

5:30 – 7:00pm: Break gather.town

Tuesday 27 April:

2:00 – 3:30pm: Temporal reachability I

Pierluigi Crescenzi: Reachability and distances in temporal graphs

Malte Renken: Sharp connectivity thresholds in random temporal graphs

Christos Zaroliagis: Alternative routes in time-dependent networks

3:30 – 4:00pm: Break gather.town

4:00 – 5:30pm: Temporal spanners and extended temporal graph models

Jessica Enright: How can we help in rapid infectious disease modelling?

Zvi Lotker: Analyzing Narratives in Social Networks

Michael Raskin: Nearly-optimal spanners in random temporal graphs

5:30 – 7:00pm: Break gather.town

Wednesday 28 April:

2:00 – 3:30pm: Parameterization

Hans Bodlaender: Parameterized complexity of temporal domination and related problems

Benjamin Bumpus: Interval-membership-width: dynamic programming on temporal graphs

Hendrik Molter: Finding Temporal Paths under Waiting Time Constraints

3:30 – 4:00pm: Break gather.town

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4:00 – 5:30pm: Open Problems I

Jason Schoeters

Pierluigi Crescenzi

Petter Holme

John Sylvester

Manuel Sorge

Andrea Marino

Christian Komusiewicz

5:30 – 7:00pm: Break gather.town

Thursday 29 April:

2:00 – 3:30pm: Complex systems and stream models

Rémy Cazabet: Overview on dynamic communities

Petter Holme: Hierarchies of importance estimates in temporal network epidemiology

Tiphaine Viard: Stream graphs for modelling temporal networks and the stream isomorphism problem

3:30 – 4:00pm: Break gather.town

4:00 – 5:30pm: Temporal exploration and snapshots’ connectivity

Thomas Erlebach: Temporal exploration problems

Mathilde Vernet: Persistent connected components on dynamic graphs

Jakob Spooner: Exploring 'k-edge-deficient' temporal graphs

5:30 – 6:15pm: Open Problems II

Jakob Spooner

Eric Sanlaville

Binh-Minh Bui-Xuan

Rémy Cazabet

6:15 – 7:00pm: Break gather.town

Friday 30 April:

2:00 – 4:00pm: Temporal reachability II and self-healing

Amitabh Trehan: Self-healing and flooding over temporal networks?

Mikko Kivelä: Efficient limited time reachability estimation in temporal networks

Prithwish Basu: Temporal graph k-connectivity

Wrap-up & adieu

End of Seminar