DIMAP Workshop on Advances in Modern Graph Algorithms, Venice April 8-11, 2019

Day 1, Monday, April 8

0945 - 1000: Coffee and Welcome.

1000 - 1045: Distributed Exact Shortest Paths Algorithm in Sublinear Time, Michael Elkin.

1045 - 1120: *A Tale of 3 Matrices,* Keren Censor-Hillel.

1120 - 1140: Coffee Break.

1140 - 1215: Triangle Enumeration in Distributed Networks, Seth Pettie.

1215 - 1300: Distributed Shortest Paths, Exactly, Danupon Nanongkai.

1300 - 1500: Lunch.

1500 - 1545: Approximating APSP without Scaling, Karl Bringmann.

1545 - 1630: Counting (with) homomorphisms, Radu Curticapean.

1630 - 1705: Some Connections Between the Conjectures in Fine-Grained Complexity, Amir Abboud.

1705 -: Research discussions.

2000: Dinner, Alla Madonna.

Day 2, Tuesday, April 9

- 1000 1035: Improved Approximation for Tree Augmentation: Saving by Rewiring, Fabrizio Grandoni.
- 1035 1110: Distributed Connectivity and a New Sampling Lemma, Valerie King.
- 1110 1140: Coffee Break.
- 1140 1215: Longest Cycle Above Degeneracy, Fedor Fomin.
- 1215 1250: Higher Connectivity in Dynamic Graphs, Eva Rotenberg.
- 1300 1500: Lunch.
- 1500 1545: Near-Optimal Approximate Decremental All Pairs Shortest Paths, Shiri Chechik.
- 1545 1620: *Planar Diameter via Metric Compression,* Merav Parter.
- 1620 1630: Coffee Break.
- 1630 1800: Open problem session.
- 1800: Reception.

Day 3, Wednesday, April 10

- 1000 1045: Online Algorithms via Projections, Seffi Naor.
- 1045 1120: Recent Advances in Massive Parallel Algorithms for Matchings and Vertex Cover, Krzysztof Onak.
- 1120 1140: Coffee Break.
- 1140 1215: *On Solving Linear Systems in Sublinear Time,*Robert Krauthgamer.
- 1215 1300: Set Cover and Vertex Cover with Delay, Yossi Azar.
- 1300 1500: Lunch.
- 1500 1545: Approximate Matchings in Massive Graphs via Local Structure, Cliff Stein.
- 1545 1620: $(1 + \epsilon)$ -Approximate Incremental Matching in Constant Amortized Update Time Chris Schwiegelshohn.
- 1620 -: Research discussions.
- 2000: Dinner, Laguna Libre.

Day 4, Thursday, April 11

- 0930 1015: Dynamic Primal-dual Algorithms for Maximum Matching, Sayan Bhattacharya.
- 1015 1050: Fully Dynamic Maximal Independent Set with Sublinear Update Time, Shay Solomon.
- 1050 1120: Coffee Break.
- 1120 1155: Breaking Quadratic Time for Small Vertex Connectivity,
 Thatchaphol Saranurak.
- 1155 1240: Lossy Kernels for some Connected Deletion Problems, Ramanujan Sridharan.
- 1240 1250: Concluding remarks and end of workshop.
- 1300 1500: Lunch.