

Edin Husić

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EDUCATION

- > **PhD in Mathematics** (4th and final year)
Supervisor: prof. László Végh.
London School of Economics and Political Science, London, UK.
- > **Master 2 of Fundamental Computer Science** (average 16.03/20)
Supervisors: prof. Stéphan Thomassé and dr. Nicolas Trotignon.
June 2017, École Normale Supérieure de Lyon, France.
- > **Master of Mathematical Sciences** (average 9.56/10)
Thesis topic: “The maximum independent set problem and equistable graphs”
Supervisors: dr. Ademir Hujdurović and prof. Martin Milanič.
August 2017, University of Primorska, Koper, Slovenia. Available at [link](#).
- > **Bachelor of Mathematics** (average 9.59/10)
Thesis topic: “Submodular functions”.
Supervisor: prof. Martin Milanič.
September 2015, University of Primorska, Koper, Slovenia. Available at [link](#).

ONGOING RESEARCH

- *Constructing gross substitutes via independent matchings*. Joint work with László Végh, Georg Loho (LSE) and Ben Smith (University of Manchester).

PREPRINTS

4. *Safety in transcript assembly via paths appearing in all path covers of a DAG*. Manuel Cáceres, Brendan Mumey, Edin Husić, Romeo Rizzi, Massimo Cairo, Kristoffer Sahlin, and Alexandru I. Tomescu. Submitted.
3. *Approximating Nash Social Welfare under Rado Valuations*. Jugal Garg, Edin Husić, and László Végh. Submitted.
2. *FPT Algorithms for Finding Dense Subgraphs in c -Closed Graphs*. Edin Husić and Tim Roughgarden.
1. *Auction Algorithms for Market Equilibrium with Weak Gross Substitute Demands and their Applications*. Jugal Garg, Edin Husić, and László Végh. Submitted.

JOURNAL PAPERS

2. *MIPUP: minimum perfect unmixed phylogenies for multi-sampled tumors via branchings and ILP*. E. Husić, X. Li, A. Hujdurović, M. Mehine, R. Rizzi, V. Mäkinen, M. Milanič and A.I. Tomescu. *Bioinformatics* 35.5 (2019): 769-777.
1. *Perfect phylogenies via branchings in acyclic digraphs and a generalization of Dilworth’s theorem*. A. Hujdurović, E. Husić, M. Milanič, R. Rizzi, A. I. Tomescu. *ACM Transactions on Algorithms (TALG)* 14.2 (2018): 1-26.

REFEREED CONFERENCE PAPERS

3. *The independent set problem is FPT for even-hole-free graphs*. Edin Husić, Stéphan Thomassé, and Nicolas Trotignon. 14th International Symposium on Parameterized and Exact Computation (IPEC 2019). Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik, 2019.
2. *A polynomial-time algorithm for the independent set problem in $\{P_{10}, C_4, C_6\}$ -free graphs*. Edin Husić and Martin Milanič. International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2019). Springer, Cham, 2019. **Best Student Paper Award**.
1. *The minimum conflict-free row split problem revisited*. A. Hujdurović, E. Husić, M. Milanič, R. Rizzi, A. I. Tomescu. International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2017). Springer, Cham, 2017.

RESEARCH VISITS	<ul style="list-style-type: none"> • Visiting researcher, Department of Computer Science, University of Helsinki, (Duration: December 01 – December 20, 2019). Collaborator: dr. Alexandru I. Tomescu.
TEACHING	<p>Class teacher/teaching assistant:</p> <ul style="list-style-type: none"> • Real Analysis 2019/2020. LSE. • Algorithms and Computation 2019/2020. LSE. • Operational Research Methods 2017/2018 and 2018/2019. LSE. • “<i>Graphs are everywhere</i>” at summer school “Mathematics is cool”, Slovenia, August 2017.
REFeree	Mathematical Programming (Series B), Theoretical Computer Science, Theory of Computing Systems, ESA, MFCS, ISAAC, WADS, IWOC.
SKILLS	<p>Programming: Java, Python, Cplex, Octave, Scilab, basics of OCaml.</p> <p>Besides my mother tongue Bosnian, I speak English and Slovenian fluently and have basic knowledge of German.</p>
MATH CONTESTS	<ul style="list-style-type: none"> • <i>Honourable mention</i>, Open Mathematical Olympiad of the Belarusian-Russian University (2014). • <i>Honourable mention</i>, IMC-International Mathematics Competition for University Students (2013). • <i>Bronze medal</i>, Open International Internet-Olympiad discipline Mathematics (2013).
EXTRA-CURRICULAR ACTIVITIES	<p>Mathematics instructor, “ACADEMUS d.o.o”, Koper, Slovenia, October 2015 - July 2016.</p> <p>Together with my colleagues Marko Prač and Vladan Jovičić won start up “<i>Podjetna Primorska</i>”, Koper, Slovenia, 26.05.2016.</p> <p>2nd place at <i>NASA Space App Challenge</i>, Koper, Slovenia, 22.04-24.04.2016. (30sec video presentation: https://www.youtube.com/watch?v=i6SbFHednmk)</p> <p><i>ERASMUS exchange program for students</i> at Charles University, Prague, Czech Republic, 30.9.2013 - 14.02.2014.</p>
SUMMER SCHOOLS	<ul style="list-style-type: none"> > <i>21st Max Planck Advanced Course on the Foundations of Computer Science: Market Design and Computational Fair Division</i> August 24-28, 2020 Virtual event (hosted from Saarbrücken, Germany) > <i>Hausdorff School on Combinatorial Optimization</i>, Bonn, Germany, 20.08-24.08.2018. > <i>São Paulo School of Advanced Science on Algorithms, Combinatorics and Optimization</i>, São Paulo, Brazil, 18.07 - 29.07.2016. > <i>PhD Summer School in Discrete Mathematics 2015</i> Rogla, Slovenia, 27.06 - 3.07.2015. > <i>PhD Summer School in Discrete Mathematics and Symmetries of Graphs and Networks IV</i>, Rogla, Slovenia, 29.06 - 5.07.2014.