Vojtěch VOREL

Personal Data

Birth:	May 8, 1991, Pardubice, Czech Republic
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Education

Current:	PhD study in Theoretical Computer Science, Charles University in Prague **Supervisors:** doc. Ondřej Čepek, prof. Václav Koubek
2010 - 2015:	Master degree in Theoretical Computer Science, specialization: Algorithms and Complexity, Charles University in Prague, completed with honours

Research

- Clausal encodings for CSP

- Pattern matching in graphs

- Transition systems - synchronization and discontinuous input processing

Publications

Journal Articles

- Vorel, V.: Complexity of a Problem Concerning Reset Words for Eulerian Binary Automata.
  Information and Computation, 25(3): 497-509, 2017

- Vorel, V.: Subset Synchronization and Careful Synchronization of Binary Finite Automata.
  International Journal of Foundations of Computer Science, 27(5):557-577, 2016

- Vorel, V., Roman, A.: Parameterized complexity of synchronization and road coloring.
  Discrete Mathematics and Theoretical Computer Science, 17(1):307–330, 2015

- Fernau, H., Schmid, M., Paramasivan, M., Vorel, V.: Characterization and Complexity Results on Jumping Finite Automata.
  Theoretical Computer Science, 2016, in press

- Vorel, V., Roman, A.: Complexity of Road Coloring with Prescribed Reset Words.
  Journal of Computer and System Sciences, 2016, in press

- Vorel, V.: On Basic Properties of Jumping Finite Automata.
  International Journal of Foundations of Computer Science, 2016, in press

Conference Articles

- Szykuła, M., Vorel, V.: An Extremal Series of Eulerian Synchronizing Automata.
  In: Developments in Language Theory, Lecture Notes in Computer Science, volume 9840, pages 380-392. Springer (2016)

- Vorel, V.: Two Results on Discontinuous Input Processing.
  In: Descriptional Complexity of Formal Systems, Lecture Notes in Computer Science, volume 9777, pages 205-216. Springer (2016)

Experience

- Participation in conferences and workshops:
    - DLT 2016 (Montreal, Canada)
    - CSA 2016 (Lisboa, Portugal)
    - DCFS 2016 (Bucharest, Romania)
    - LATA 2015 (Nice, France)
    - AFL 2014 (Szeged, Hungary)
    - LATA 2014 (Madrid, Spain)
    - Černý's Conjecture and Optimization problems, 2014 (Opava, Czech Republic)
- Long-term stays:
    - University of Ljublana, October 2016 to January 2017
- Short-term stays:
    - University of Trier, November 2015
    - University of Wroclaw, April 2015 and October 2015
    - Slovak Academy of Sciences, Math. Institute, Košice, April 2015
    - Jagiellonian University in Krakow, April 2014 and September 2014
- Summer schools:
    - AutoMathA 2015 (Leipzig, Germany)

- o Summer School on Lower Bounds 2015 (Horoměřice, Czech Republic)
- Reviewing of research papers: IJFCS, MFCS, DLT, DCFS, CIAA, LATA
- Pedagogy:
  - o Charles University: practicals in Automata and Grammars (2016)
  - o Regular voluntary work with school-age children (since 2007)
- IT and programming:
  - o Production and administration of web pages (since 2009)
  - o Analysis of biological data, Czech University of Life Sciences (2016)

Skills

- Programming and scienftific software: C++, C#, Python, Mathematica, R, LaTeX, SQL, HTML, JavaScript

Awards

- Prize of Josef Hlávka for best student of the faculty, 2015
- Dean's prize for best master thesis in Computer Science, 2015
- Czech and Slovak student science competition, 2015, 1st place in Theoretical Computer Science

Grants

- GAUK grant No. 52215, principal researcher (2015 - 2017)
- Czech Science Foundation grant GA14-10799S, researcher (2015 - 2016)