

Fixed-Parameter Algorithms, IA166

Sebastian Ordyniak

Faculty of Informatics
Masaryk University Brno

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Tutorial – Topics

- The following is just a small selection of possible topics (papers) for the tutorial.
- Please ask for papers on topics you are interested in (you mind find out which topics these are during the course of this lecture).
- If you know you are more interested in applications do not hesitate to ask as well!

Tutorial – Topics

- Jianer Chen, Iyad A. Kanj, Ge Xia: **Improved upper bounds for vertex cover**. Theor. Comput. Sci. 411(40-42): 3736-3756 (2010);
- Yixin Cao, Jianer Chen, Yang Liu: **On Feedback Vertex Set New Measure and New Structures**. SWAT 2010: 93-104;
- Jianer Chen, Yang Liu, Songjian Lu, Barry O’Sullivan, Igor Razgon: **A fixed-parameter algorithm for the directed feedback vertex set problem**. J. ACM 55(5): (2008);
- Daniel Marx, Igor Razgon: **Fixed-parameter tractability of multicut parameterized by the size of the cutset**. STOC 2011: 469-478;

Tutorial – Topics

- Jiong Guo, Jens Gramm, Falk Hüffner, Rolf Niedermeier, Sebastian Wernicke: **Compression-based fixed-parameter algorithms for feedback vertex set and edge bipartization**. J. Comput. Syst. Sci. 72(8): 1386-1396 (2006);
- Stefan Kratsch, Magnus Wahlström: **Compression via Matroids: A Randomized Polynomial Kernel for Odd Cycle Transversal**. SODA 2012: 94-103;
- Hans L. Bodlaender, Bart M. P. Jansen, Stefan Kratsch: **Kernel Bounds for Path and Cycle Problems**. IPEC 2011: 145-158;
- Hans L. Bodlaender, Bart M. P. Jansen, Stefan Kratsch: **Cross-Composition: A New Technique for Kernelization Lower Bounds**. STACS 2011: 165-176;

Tutorial – Topics

- Fedor V. Fomin, Daniel Lokshtanov, Saket Saurabh, Dimitrios M. Thilikos: **Bidimensionality and Kernels**. SODA 2010: 503-510;
- Torben Hagerup: **Simpler Linear-Time Kernelization for Planar Dominating Set**. IPEC 2011: 181-193.