TESTING SOME CITATIONS Ajtai [1] Boas [8] Brightwell & Winkler [2] Micciancio [7] Haviv & Regev [6] Downey et al. [5]

1 Further Results

1.1 Graph Problems

The FEEDBACK VERTEX SET PROBLEM: Given a graph G, find a set of k vertices whose removal leaves a graph without cycles. k is the parameter. It was open to determine if this problem is FPT. Chen [3] showed this problem is FPT.

1.2 Restrictions on Graphs

Some graph problems are in FPT if the graphs are restricted. Courcelle [4],

References

 Miklós Ajtai. The shortest vector problem in L₂ is NP-hard for randomized reductions (extended abstract). In Jeffrey Scott Vitter, editor, Proceedings of the Thirtieth Annual ACM Symposium on the Theory of Computing, Dallas, Texas, USA, May 23-26, 1998, pages 10–19. ACM, 1998.

https://doi.org/10.1145/276698.276705.

- Graham Brightwell and Peter Winkler. Counting linear extensions. Order, 8:225-242, 1991. https://link.springer.com/content/pdf/10.1007/BF00383444. pdf.
- [3] Jianer Chen, Yang Liu, Songjian Lu, Barry O'Sullivan, and Igor Razgon. A fixed-parameter algorithm for the directed feedback vertex set problem.

J. ACM, 55(5):21:1-21:19, 2008. http://doi.org/10.1145/1411509.1411511.

- [4] Bruno Courcelle. Graph rewriting: An algebraic and logic approach. In Jan van Leeuwen, editor, Handbook of Theoretical Computer Science, Volume B: Formal Models and Semantics, pages 193-242. Elsevier and MIT Press, 1990. https://doi.org/10.1016/b978-0-444-88074-1.50010-x.
- [5] Rodney G. Downey, Michael R. Fellows, and Kenneth W. Regan. Parameterized circuit complexity and the W hierarchy. *Theoretical Computer Science*, 191(1-2):97–115, 1998.
 https://doi.org/10.1016/S0304-3975(96)00317-9.
- [6] Ishay Haviv and Oded Regev. Tensor-based hardness of the shortest vector problem to within almost polynomial factors. *Theory of Computing*, 8(1):513-531, 2012.
 https://doi.org/10.4086/toc.2012.v008a023.
- [7] Daniele Micciancio. Inapproximability of the shortest vector problem: Toward a deterministic reduction. *Theory of Computing*, 8(1):487-512, 2012. https://doi.org/10.4086/toc.2012.v008a022.
- [8] Pter van Emde Boas. Another NP-complete problem and the complexity of computing short vectors in a lattice. Tech Report 8104, University of

Amsterdam, Dept of Mathematics, Neverthlands, 1981.