Advanced Topics in Foundations of Databases

Material for Final Project and Essays

The references are taken from DBLP (http://dblp.uni-trier.de), the main bibliographical source for computer science research. You can search DBLP by authors' names, to find those papers. Once they are found, clicking on the electronic edition icon next to the paper gives you access to the source, as long as you are accessing the site from the UoE network (it will *not* work elsewhere). If for an occasional paper it does not work (there should be very few exceptions, if any), try a Google Scholar search (https://scholar.google.com).

Theme 1: Relational Model and Foundations of Relational Query Languages

1. Albert Atserias, Martin Grohe, Daniel Marx: Size Bounds and Query Plans for Relational Joins. FOCS 2008: 739-748

2. Pablo Barceló, Leonid Libkin, Miguel Romero: Efficient Approximations of Conjunctive Queries. SIAM J. Comput. 43(3): 1085-1130 (2014)

3. Pablo Barceló, Georg Gottlob, Andreas Pieris: Semantic Acyclicity Under Constraints. PODS 2016: 343-354

4. Pablo Barceló, Andreas Pieris, Miguel Romero: Semantic Optimization in Tractable Classes of Conjunctive Queries. SIGMOD Record 46(2): 5-17 (2017)

5. Georg Gottlob, Nicola Leone, Francesco Scarcello: The Complexity of Acyclic Conjunctive Queries. Journal of the ACM 48(3):431-498 (2001)

6. Georg Gottlob, Nicola Leone, Francesco Scarcello: Hypertree Decompositions and Tractable Queries. J. Comput. Syst. Sci. 64(3):579-627 (2002)

7. Martin Grohe: The Complexity of Homomorphism and Constraint Satisfaction Problems Seen from the Other Side. Journal of the ACM 54(1): 1:1-1:24 (2007)

8. Martin Grohe, Thomas Schwentick, Luc Segoufin: When is the Evaluation of Conjunctive Queries Tractable? STOC 2001: 657-666

9. Phokion G. Kolaitis, Moshe Y. Vardi: Conjunctive-Query Containment and Constraint Satisfaction. J. Comput. Syst. Sci. 61(2): 302-332 (2000)

10. Christos H. Papadimitriou, Mihalis Yannakakis: On the Complexity of Database Queries. J. Comput. Syst. Sci. 58(3): 407-427 (1999)

11. Todd L. Veldhuizen*:* Triejoin: A Simple, Worst-Case Optimal Join Algorithm. ICDT 2014: 96-106