

## **Advanced Topics in Foundations of Databases, 2016/17**

### **Material for Final Project and Essays**

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#### **Topic 5: Foundations of XML**

1. Frank Neven: Automata, Logic, and XML. CSL 2002: 2-26
2. Leonid Libkin: Logics for Unranked Trees: An Overview. Logical Methods in Computer Science 2(3) (2006)
3. Georg Gottlob, Christoph Koch, Reinhard Pichler: Efficient algorithms for processing XPath queries. ACM Trans. Database Syst. 30(2): 444-491 (2005)
4. Georg Gottlob, Christoph Koch, Reinhard Pichler, Luc Segoufin: The complexity of XPath query evaluation and XML typing. Journal of the ACM 52(2): 284-335 (2005)
5. Frank Neven, Thomas Schwentick: Query automata over finite trees. Theor. Comput. Sci. 275(1-2): 633-674 (2002)
6. Georg Gottlob, Christoph Koch: Monadic datalog and the expressive power of languages for Web information extraction. Journal of the ACM 51(1): 74-113 (2004)
7. Pablo Barceló, Leonid Libkin: Temporal logics over unranked trees. LICS 2005: 31-40
8. Leonid Libkin, Cristina Sirangelo: Reasoning about XML with temporal logics and automata. J. Applied Logic 8(2): 210-232 (2010)
9. Thomas Schwentick: XPath query containment. SIGMOD Record 33(1): 101-109 (2004)
10. Wenfei Fan, Leonid Libkin: On XML integrity constraints in the presence of DTDs. Journal of the ACM 49(3): 368-406 (2002)
11. Marcelo Arenas, Wenfei Fan, Leonid Libkin: On the Complexity of Verifying Consistency of XML Specifications. SIAM J. Comput. 38(3): 841-880 (2008)
12. Wim Martens, Frank Neven, Thomas Schwentick: Simple off the shelf abstractions for XML schema. SIGMOD Record 36(3): 15-22 (2007)
13. Wim Martens, Frank Neven, Thomas Schwentick, Geert Jan Bex: Expressiveness and complexity of XML Schema. ACM Trans. Database Syst. 31(3): 770-813 (2006)

14. Mikolaj Bojanczyk, Anca Muscholl, Thomas Schwentick, Luc Segoufin: Two-variable logic on data trees and XML reasoning. *Journal of the ACM* 56(3) (2009)
15. Tony Tan: Extending two-variable logic on data trees with order on data values and its automata. *ACM Trans. Comput. Log.* 15(1): 8 (2014)
16. Claire David, Leonid Libkin, Tony Tan: Efficient reasoning about data trees via integer linear programming. *ACM Trans. Database Syst.* 37(3): 19 (2012)
17. Henrik Bjorklund, Wim Martens, Thomas Schwentick: Conjunctive query containment over trees. *J. Comput. Syst. Sci.* 77(3): 450-472 (2011)
18. Wojciech Czerwinski, Wim Martens, Pawel Parys, Marcin Przybylko: The (Almost) Complete Guide to Tree Pattern Containment. *PODS* 2015: 117-130
19. Maarten Marx: Conditional XPath. *ACM Trans. Database Syst.* 30(4): 929-959 (2005)
20. Balder ten Cate, Maarten Marx: Navigational XPath: calculus and algebra. *SIGMOD Record* 36(2): 19-26 (2007)
21. Loredana Afanasiev, Maarten Marx: An analysis of XQuery benchmarks. *Inf. Syst.* 33(2): 155-181 (2008)
22. Luc Segoufin, Cristina Sirangelo: Constant-Memory Validation of Streaming XML Documents Against DTDs. *ICDT* 2007: 299-313