

Max Planck Institut für Informatik  
Department D5  
Thomas Neumann

Building 46.1, Room 418  
66123 Saarbrücken  
Phone: (0621) 181-518  
Email: neumann@mpi-inf.mpg.de



# Query Optimization

## 4. Exercise, Winter 2004/2005

Due 2005-11-15

1. Illustrate the transformative approach (RS-0) for a clique query with 3 relations. How does it compare to dynamic programming approaches? (3 Points)
2. The transformative approaches discussed in the lecture construct the optimal solution, but build big memoization tables and consider many different plans. Give an example of a greedy transformative approach that is faster and consumes less memory. (3 Points)
3. Dynamic Programming algorithms usually only produce a solution after the whole DP table is filled. Modify a DP algorithm (DPsub or DPsize) such that it can be stopped at any time and produces a complete plan. This plan must use the already calculated entries in the DP table! (4 Points)