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
9. Exercise, Winter 2006/2007

Due 2007-01-09

1. Indices are typically B-trees, more rarely hash based indices. What are the advantages and disadvantages of the different strategies? Given an example where a hash based index is more appropriate. (3 Points)

2. Given two sets indexed in B-trees. Explain how the two sets can be intersected efficiently. (3 Points)

3. Given an index on $a_1, \ldots, a_n$ and conjunctive filter conditions σ_i of the form $a_j \theta c_i$, where c_i is a constant and $\theta \in \{<, \leq, >, \geq, =, \neq\}$. Give a formalism to construct a suitable index scan (if possible). (4 Points)