

Exam syllabus for Database Tuning, spring 2009

The course books

- RG section 9, 10, 11, 13, 14, 15, 16.7, 17, 20, 25, 28
- SB section 1, 2.2, 2.3, 3 (except 3.4, 3.10), 4, 6.6
- RG = Database Management Systems, 3rd edition, by Raghu Ramakrishnan and Johannes Gehrke, McGraw-Hill, 2002. ISBN: 0071230572.
- SB = Database Tuning. Principles, Experiments, and Troubleshooting Techniques, by Dennis Shasha and Philippe Bonnet, Morgan Kaufmann, 2003. ISBN: 1558607536.

Papers and other materials

All material is available at <http://www.itu.dk/people/pagh/DBT09/>. From outside ITU you can find the papers at <http://www.itu.dk/people/pagh/DBT09/Intranet/> (password protected with the login and password supplied to course participants by e-mail).

- [Arge01] = Lars Arge. External memory data structures. Section 1, 2.1 (persistent B-trees)].
- [BrodalFagerberg03] = Gerth Brodal and Rolf Fagerberg. Lower Bounds for External Memory Dictionaries, SODA 2003. Section 1 and 3.4.
- [BKOS00] = Mark de Berg, M. van Krefeld, M. Overmars, and O. Schwarzkopf. Computational Geometry: Algorithms and Applications. Section 5.3 (range trees). Handed out.
- [JensenPagh08] Morten Skaarup Jensen and Rasmus Pagh. Optimality in External Memory Hashing. Section 1, 2.0, 2.1.
- [KarkkainenRao03] = Juha Karkkainen and S. Srinivasa Rao. Full-text Indexes in External Memory. Section 7.1-7.4.
- [MaheshwariZeh03] = Anil Maheshwari and Norbert Zeh. A Survey of Techniques for Designing I/O-Efficient Algorithms. Section 3.1-3.2.
- [RusuDobra07] = Florin Rusu and Alin Dobra. Florin Rusu. Sections 1, 3, 5]
- [Sanders03] = Peter Sanders. Memory Hierarchies - Models and Lower bounds. Section 1.3-1.5.
- [Pagh03] = Rasmus Pagh. Basic External Memory Data Structures. Section 2.3.0, 2.3.1, 2.3.2, 2.4.1-2.4.3.
- [WOS04] = Kesheng Wu, Ekow Otoo, and Arie Shoshani. On the Performance of Bitmap Indices for High Cardinality Attributes. Section 1, 2.
- Slides from the lectures. Available at <http://www.itu.dk/people/pagh/DBT09/> .
- All material related to the project.