DM207 I/O-Efficient Algorithms and Data Structures

Fall 2009

Exam Questions

1. External sorting, upper and lower bounds.

2. External searching in 1D.

3. External interval trees.

4. External 2D range searching.

5. External priority queue.

6. External graph algorithms: list ranking, Euler tour on trees.

7. External graph algorithms: MST on undirected, weighted graphs.

8. External graph algorithms: BFS on undirected graphs.

9. Cache-oblivious searching.

The exam takes place January 27 in U49D, with preparation in U49B. The first person draws a question at 10:00 and is examined at 10:30. The order of students can be found on a sheet posted on the Imada billboard.

The examination period (including grading, etc.) is 30 minutes. The exam is with preparation (additional 30 minutes). You should plan to make a 15 minute presentation using the blackboard (you cannot bring transparencies). We may ask brief questions during your presentation. Afterwards, we may ask questions related to the topic, and to the rest of the curriculum.