Institut for Matematik & Datalogi
Syddansk Universitet

March 28, 2003
JBJ

DM69 — Weekly note 8

Handed out material Monday March 24, 2003

Atallah editor, Algorithms and Theory of Computation Handbook, Chapters 35 and 47.

Material covered in the lecture on March 28

Matroid partition 13.6 in Korte and Vygen and various applications of matroid intersection/partitioning.

Exercises on April 3, 2003

This will be a mixture of a lecture and discussion. The topic is best suited for this, I think.

Read the pages 35.1-35.19, make sure you know the different scheduling terms/models and be prepared to discuss the various scheduling algorithms. Read sections 47.1-47.2 and familiarize yourself with the different models. We will not discuss this so it is youer own responsibility.

Lecture on April 4, 2003

Parallel algorithms, Chapter 47 sections 3, 4 and 5.

Exam questions

For the stuff we have covered until now, the following are the possible questions (main questions).

1. Shortest paths in digraphs.
2. The maximum (s,t)-flow problem and the minimum (s,t)-flow problem.
3. Polynomial algorithms for maximum flows.
4. Minimum cost flows.
5. The assignment problem and the transportation problem.
6. Matchings: characterizations and algorithms.
7. Matroids and the greedy algorithm.
8. Matroid intersection and matroid partition: algorithms and applications.
9. Scheduling: basic concepts and examples of proofs.