On-Line Algorithms – F06 – Lecture 5

Announcement

The Tuesday times have been moved to 12:15-14:00 in U89. There will be an exception on March 7, where we will be in U10. Note that for the next two weeks, we are switching which day is lecture and which is discussion section.

Lecture, February 21

We finished chapters 1 and 2 in the textbook.

Lecture, March 1

Kim Skak Larsen will begin on chapters 3 and 4 in the textbook.

Lecture, March 8

Kim Skak Larsen will finish chapter 4 and I may begin on chapter 6 if there is time.

Problems for February 28

1. Exercise 2.1 in the textbook.

2. Exercise 2.3 in the textbook (but only for the static case).

3. Show that there is a request sequence on which BIT's performance ratio is no better than $\frac{7}{4}$ in the partial cost model. (It is sufficient to look at lists of length 2.)

4. Do Exercise 2.4. Note that the lower bound will depend on p, rather than being $2 - \epsilon$.

5. How do you define BIT and COMB in the dynamic model?

6. Do Exercise 2.5 in the textbook.

Problems for March 7

1. Do Exercise 3.2 in the textbook.

2. Do Exercise 3.3 in the textbook.

3. Do Exercise 3.6 in the textbook.

4. Do Exercise 3.7 in the textbook.

5. Do Exercise 3.8 in the textbook.

6. Do Exercise 3.9 in the textbook.

7. Do Exercise 3.10 in the textbook.