Institut for Matematik og Datalogi

Syddansk Universitet

April 17, 2010

JFB

On-Line Algorithms – F10 – Lecture 3

Lecture, April 15

We continued with chapter 1 in the textbook, covering lower bounds and the factoring method. We began on analyzing TIMESTAMP, introducing the partitioning used in the proof.

Lecture, April 20

We will finish chapter 1 in the textbook and begin on chapter 2.

Lecture, April 23

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

Problems for April 27

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.