

On-Line Algorithms – F06 – Lecture 2

Announcement

The discussion section on February 8 will begin at 11:15.

Lecture, February 1

We began with an introduction to the course. Then, we covered up to, though not including, Remark 1.1 of section 1.3 of chapter 1.

Lecture, February 7

We will continue with chapter 1 in the textbook, covering up through section 1.6.

Lecture, February 15

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

Problems for February 14

1. Problems that we didn't finish on February 8.
2. Exercise 1.11 in the textbook. To make the factoring lemma hold in the full cost model, change the definition of $\text{ALG}(x, j)$ to add one for the positive comparison. Try adding something to the original definition, even in the case where r_j is in front of x . Then, when comparing MTF to OPT, try looking at two different times where MTF pays the maximum, while OPT pays the minimum.
3. Exercise 1.12 in the textbook.

4. Give a request sequence for `TIMESTAMP`, where `TIMESTAMP`'s performance ratio is exactly 2 in the partial cost model. You may assume any starting configuration.