

On-Line Algorithms – F04 – Lecture 3

Lecture, February 11

We continued with chapter 1 in the textbook, finishing sections 1.4, 1.5 and 1.6 (the last small part of it was covered in the discussion section on February 16).

Lecture, February 18

We will cover chapter 2 in the textbook.

Lecture, February 25

We will begin on chapter 3 in the textbook.

Problems for Monday, February 23

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 for $p \in (0, 1/2)$. It doesn't seem easy to get the result 2 for $p \geq 1/2$. Can you get it?
5. How do you define BIT and COMB in the dynamic model?
6. Do Exercise 2.5 in the textbook.