

DM551 – Algorithms and Probability – 2018

Lecture 7

Lecture, September 24

We finished section 7.4, with an example using Chebyshev's Inequality. We also covered sections 8.5 and 8.6. At the end, we began on chapter 13 in *Algorithm Design* by Kleinberg and Tardos, covering up through the calculation of the probability of $S[i, t]$ as $p(1 - p)^{n-1}$ in section 13.1.

Lecture, September 26

We will cover sections 13.1 and 13.2 in chapter 13 in *Algorithm Design* by Kleinberg and Tardos.

Lecture, October 1

We will cover sections 13.3 and 13.4 in chapter 13 in *Algorithm Design* by Kleinberg and Tardos.

Problems to be discussed on October 3

1. Exercises on pages 782–793: 1, 3, 4. (For problem 3, for any given process P_i , what is the expected number of executions of this protocol before P_i enters the set S for the first time? Answer this for both parts, a. and b., of the question.)
2. Discuss Solved exercise 1 on page 776 of Kleinbert and Tardos.