

# DM553 – Complexity and Computability – 2018

## Lecture 16

### **Announcement**

IMADA has just announced TA positions for fall 2018. Everyone interested is encouraged to apply. Having to explain the course material to fellow students is a very good way of enhancing ones own understanding. This does not only apply to the material you are responsible for (and thus should understand very well), but through having to explain stuff to others, you get better at identifying the core of problems and hence become a better student yourself.

The deadline for application is May 11 and the announcement can be seen posted at IMADA and also on the SDU webpages for open positions

[https://www.sdu.dk/da/service/ledige\\_stillinger/974985](https://www.sdu.dk/da/service/ledige_stillinger/974985)

You are welcome to contact Jørgen Bang-Jensen (Computer Science) or Kristian Debrabant (Mathematics) if you have any questions.

### **Lecture, April 25**

We covered sections 3.3 and 3.5 from the notes and then covered median finding from section 9.3 in CLRS. We began on approximation algorithms, defining the approximations ratio and approximation schemes.

### **Lecture, May 1**

We will continue approximation algorithms from chapter 35 of CLRS, covering sections 35.1 and 35.2 of CLRS and possibly section 35.3.

### **Lecture, May 2**

We will cover sections 35.3 and 35.5 from chapter 35. We may also cover approximation algorithms for weighted vertex cover using linear programming and CNF-SAT using randomized rounding from section 35.4.

## **Problems to be discussed on May 8**

1. 35.1-1, 35.1-3, 35.1-4, 35.1-5.
2. 35.2-1, 35.2-2 (assume undirected), 35.2-3 (assume undirected).