

DM19 – Algorithms and Complexity – E03 – Lecture 13

Announcement

The Friday discussion sections have been cancelled. There will only be discussion sections on Thursdays at 10:15 in U2.

Lecture, November 24

We covered section 35.4 from the textbook and randomized rounding for MAX-SAT from a handout from Motwani and Raghavan's book *Randomized Algorithms*. We also began on branch-and-bound from the second set of notes.

Lecture, December 1

We will finish branch-and-bound from the second set of notes and begin on heuristics from the first set of notes.

Lecture, December 8

We will finish heuristics from the first set of notes and begin on on-line algorithms from: [http://www.uni-paderborn.de/fachbereich/AG/agmadh/WWW/english/scripts.html# Albers](http://www.uni-paderborn.de/fachbereich/AG/agmadh/WWW/english/scripts.html#Albers)

These are notes written by Susanne Albers.

Problems to be discussed in week 50

- From Jens Clausens's notes on branch-and-bound, do exercises 2, 3, 4, 6.

- Define a branch-and-bound algorithm for solving the independent set problem.
- Try the nearest insertion construction heuristic on the Bornholm example from Figure 3 in the notes by Jens Clausen.
- Try the 2-opt heuristic on the same example.