DM19 – Algorithms and Complexity
E05 – Lecture 13

Announcement

IMADAs julefrokost finder sted torsdag den 22. december kl. 12:30. Tilmeldingslister findes på sekretariatet. Se eventuelt opslag rundt omkring på instituttet.

IMADA's Christmas party will take place Thursday, the 22nd of December at 12:30. You can sign up for the party at the secretariat. Please see the notice at the institute.

Lecture, November 30

We finished with approximation algorithms from chapter 35 in the textbook (section 35.4, especially Theorem 35.6) and randomized rounding for MAX-SAT from the notes from Motwani and Raghavan's book *Randomized Algorithms*. We also began on branch-and-bound from the notes by Jens Clausen.

Lecture, December 7

We will finish with branch-and-bound from the notes and begin on heuristics (also from the notes), covering up through and including section 10.4.2 on genetic algorithms.

Lecture, December 14

We will finish with heuristics from the notes and begin on on-line algorithms, also from the notes.

Problems to be discussed in week 50

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

2. Define a branch-and-bound algorithm for solving the independent set problem.

3. Try the nearest insertion construction heuristic on the Bornholm example from Figure 3 in the notes by Jens Clausen.

4. Try the 2-opt heuristic on the same example.