

DM19 – Algorithms and Complexity – E03 – Lecture 7

Lecture, October 6

We finished with Fibonacci heaps and covered Huffman codes from section 16.3 in the textbook.

Lecture, October 20

We will begin on NP-completeness from chapter 34 in the textbook and the section by Papadimitriou and Steiglitz from the first set of notes. This will include a brief introduction to undecidability. For more details, see chapter 5 of the textbook by Lewis and Papadimitriou, which is on reserve for DM17 in the library.

Lecture, October 27

We will continue with NP-completeness from chapter 34 in the textbook and the section by Papadimitriou and Steiglitz from the first set of notes.

Matalogifest

Sæt plaster i kalenderen fredag den 14. november.

- Festudvalget

Problems to be discussed in week 44

- 34.1-3, 34.1-5.

- Suppose that there is a language L for which there is an algorithm that accepts any string $x \in L$ in polynomial time and rejects any $x \notin L$, but this algorithm runs in super-polynomial (more than polynomial) time if $x \notin L$. Argue that L can be decided in polynomial time.
- Define an algorithm to show that SATISFIABILITY is in NP.
- 34.2-3, 34.2-5, 34.2-8, 34.2-10.
- 34.3-2, 34.3-6.