

DM19 – Algorithms and Complexity – E04 – Lecture 9

Announcement

There will be three colloquia this week. On Tuesday, November 9, David Matula from SMU, Texas, will speak at 14:15 in IMADA's seminar room on "RISC's Unfinished Symphony: The Arithmetic Unit". There will be a Computer Science and Industrial Applications Colloquium on "Protection of communication-networks using P-cycles", by Tommy Thomadsen, from DTU, on Wednesday, November 10, at 14:15, in IMADA's seminar room. Two days later there will be a colloquium on some problems in combinatorial optimization, entitled "Three problems and one theorem", by Gerhard Woeginger from the Technical University – Eindhoven, on Friday, November 12, at 9:15 in U51. More information about these colloquia is available at http://www.imada.sdu.dk/Events/CS_Colloquia/schedule.html.

Announcement

Der er Matalogifest lørdag den 13. november. Festen afholdes i U26. Temaet er "Jubilæumsfest" i anledning af IMADA's 100000 års jubilæum og Matalogifestens 10000 års jubilæum. Tilmelding kan foretages på sekretariatet. Pris: 125 kroner.

Lecture, November 1

We finished with Huffman codes. Then, we began on NP-completeness from chapter 34 in the textbook and the section by Papadimitriou and Steiglitz from the first set of notes. This included a brief introduction to undecidability. For more details on undecidability, see chapter 5 of the textbook by Lewis and Papadimitriou, which is on reserve for DM17 in the library.

Lecture, November 8

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.

Lecture, November 15

We will continue with NP-completeness and begin on approximation algorithms from chapter 35 in the textbook.

Problems to be discussed November 18 and 12

1. 34.3-2, 34.3-6, 34.3-7.
2. 34.4-4, 34.4-5, 34.4-6, 34.4-7.
3. 34.5-1.
4. 34-1 – all parts. For the last part, assume that you can find a maximum matching in polynomial time. This part may still be hard since we have not covered matchings in this course.