Discrete Optimization

MATH-261

Fritz Eisenbrand

EPFL

Information on

Friedrich

Eisenbrand

- Content
- Exercices and exam
- Contact and forum

Assistants

Main assistants:

- Neta Singer
- Jiaye Wei

Student assistants

- Sayantan Biswas
- Mehdi Aziz Jelassi

Content

1. Linear optimization problems
2. Convex geometry: Polyhedra, convex sets, Farkas' Lemma
3. The simplex algorithm
4. Duality, Zero sum games: Von Neumann's theorem
5. Analysis of algorithms: Gaussian elimination and running time of simplex algorithm
6. Ellipsoid method and convex optimization problems

Course notes (polycopié)

Can be found on moodle page

Regularly updated

More content than covered in this course

Exercises

- One set each week
- First problem sheet online today (Discussed Feb 25)
- Problem set week *n*:
  - Online after lecture
  - Discussed in exercise session of following week

Exam

- 2-3 open questions
- $\sim$ 4 questions multiple choice
- $\sim$ 8 questions true/false

Contact/communication

- Questions, comments: Forum
- Format questions in latex!
- Please do not send me e-mails !
- Office hours: Wednesday 16:00 - 17:00
- schedule time-slot with: e-mail `pauline.bataillard@epfl.ch`