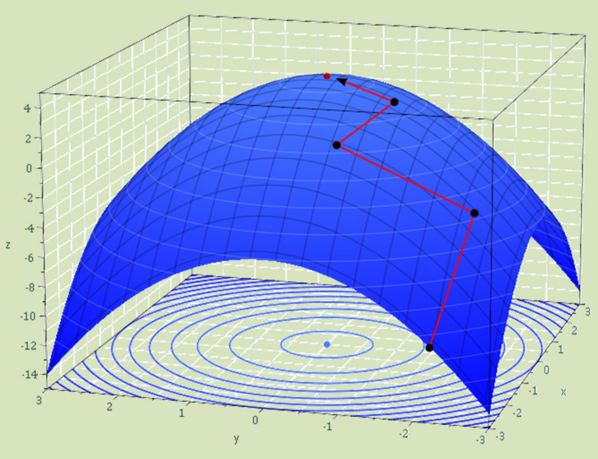
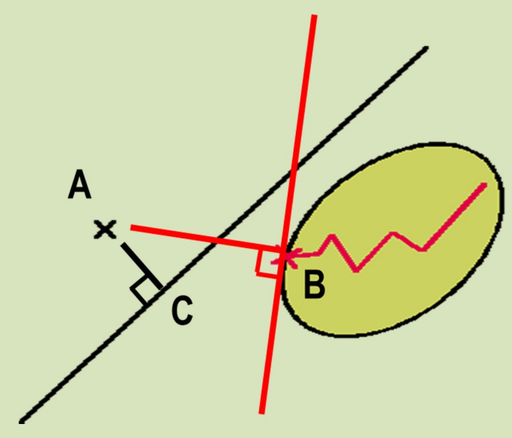
OPTIMIZATION courses

Introduction to optimization

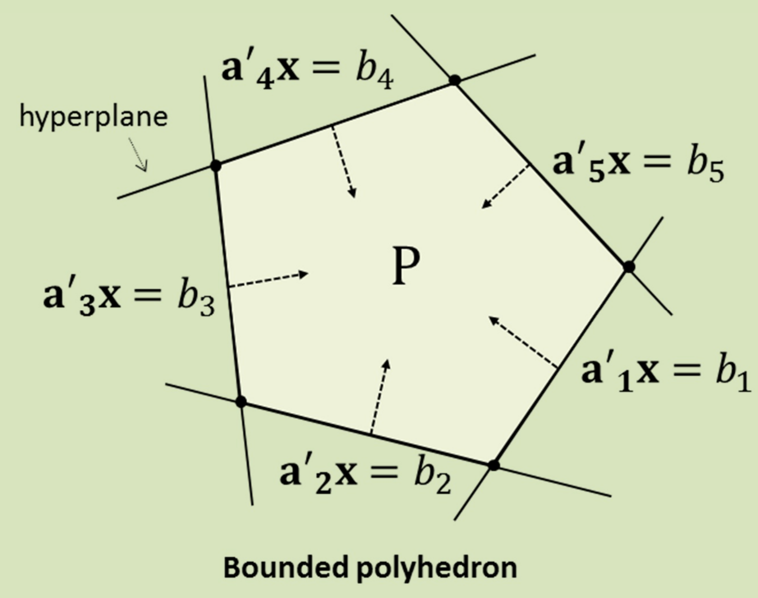


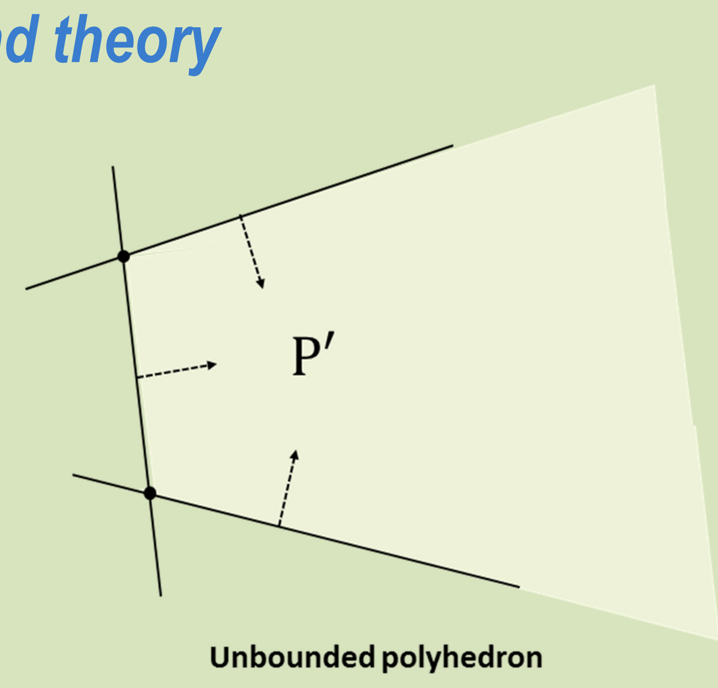


duality theory

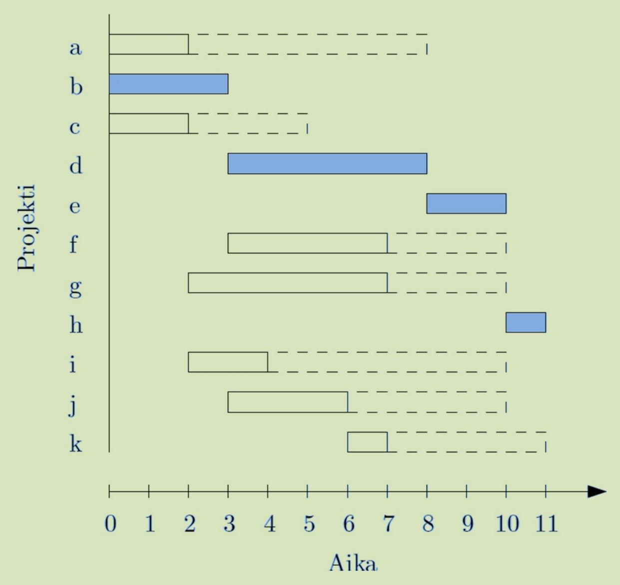
Linear programming

modeling and theory

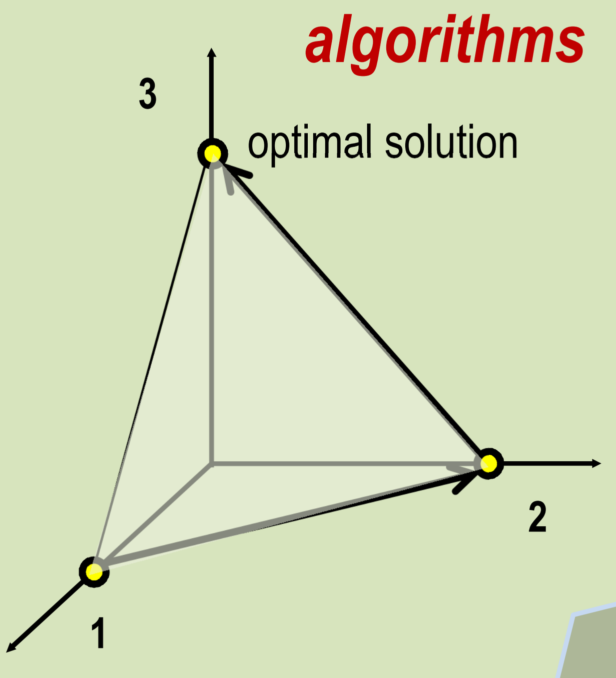




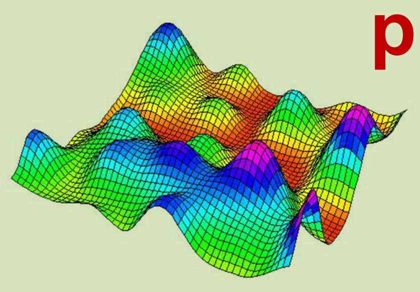
applications



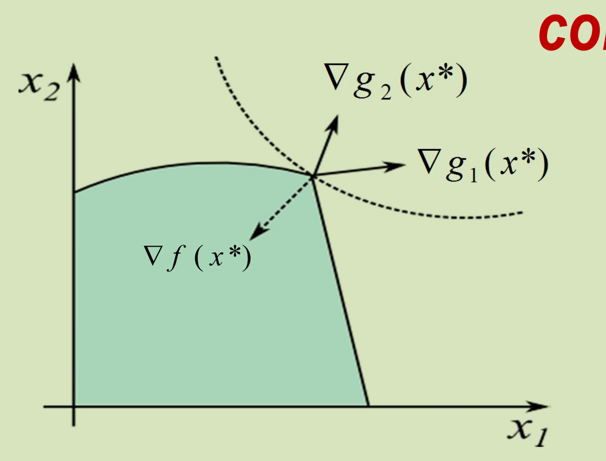
algorithms



Nonlinear programming

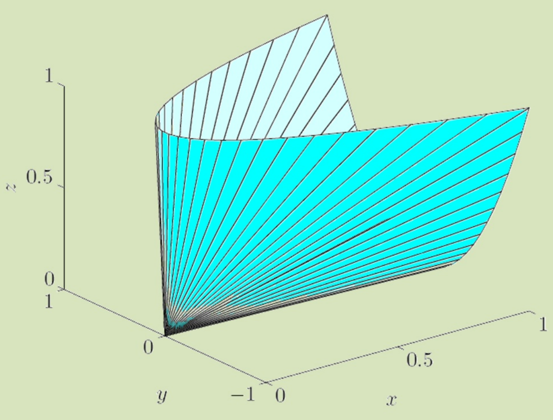


optimality conditions

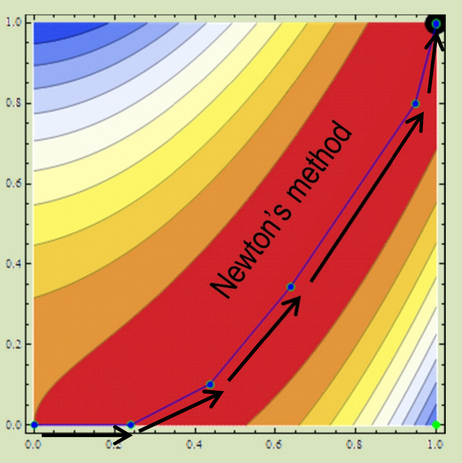


$$-\nabla f(x^*) = \lambda_1 \nabla g_1(x^*) + \lambda_2 \nabla g_2(x^*)$$

generalized convexity

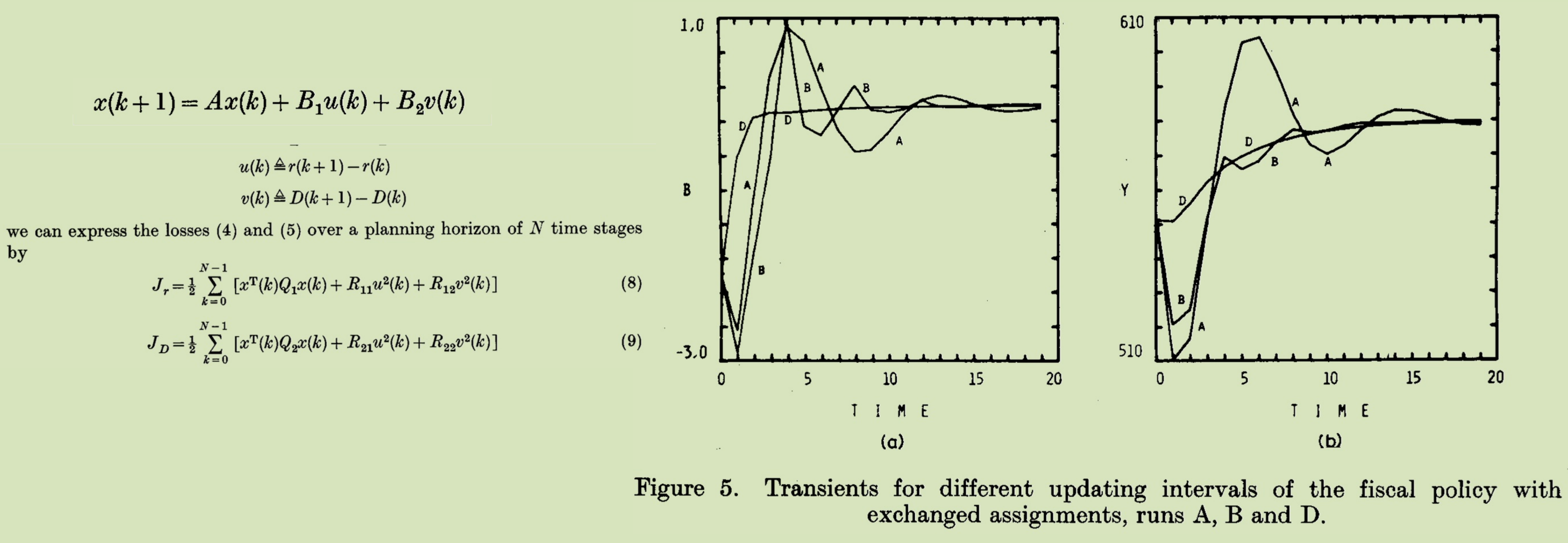


numerical algorithms

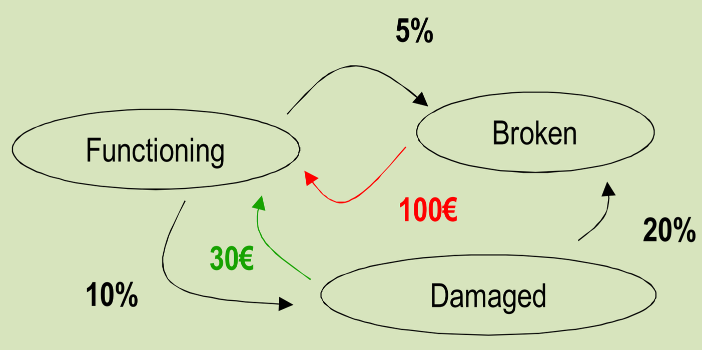


Dynamic optimization

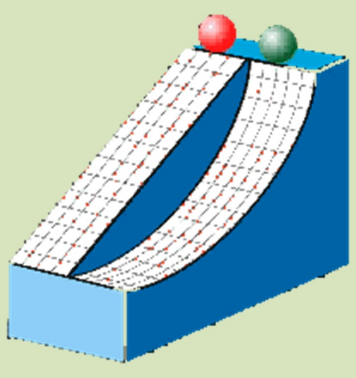
optimal macroeconomical stabilization



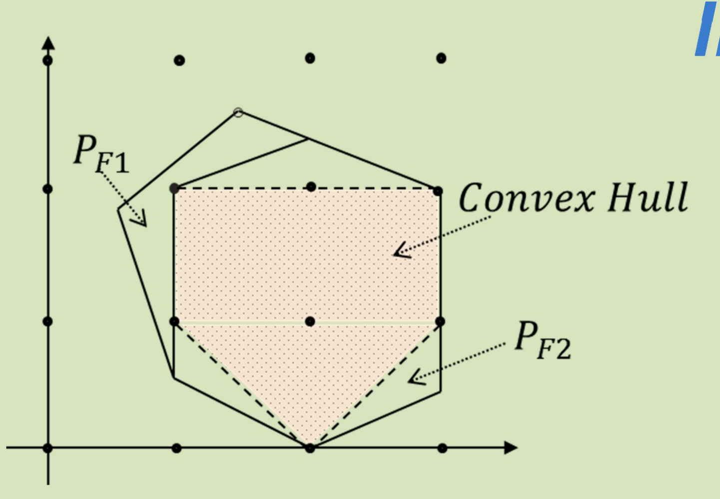
optimal maintenance planning



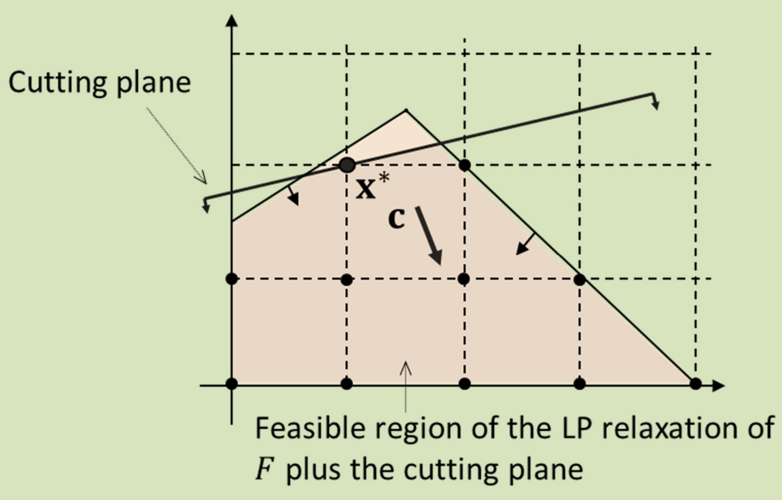
optimal design



Integer optimization

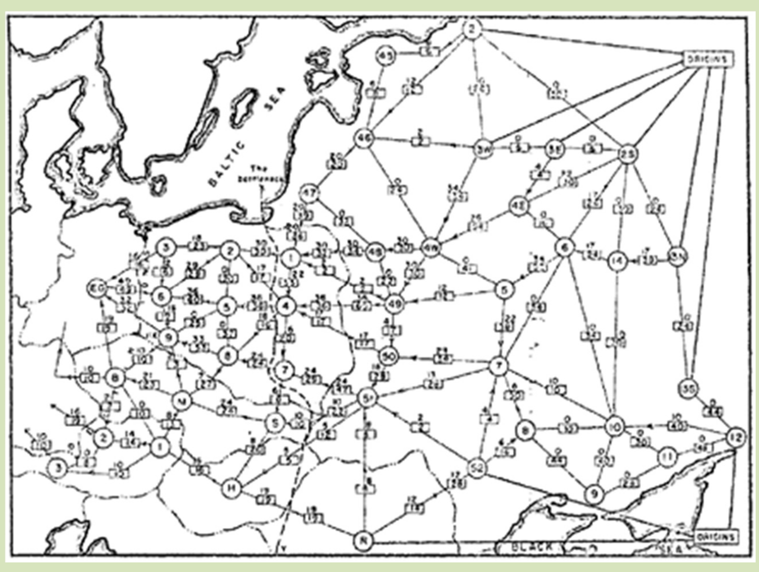


methods



combinatorial optimization

applications

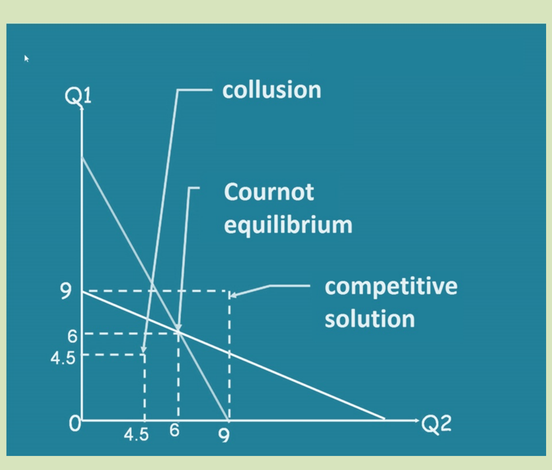


network optimization

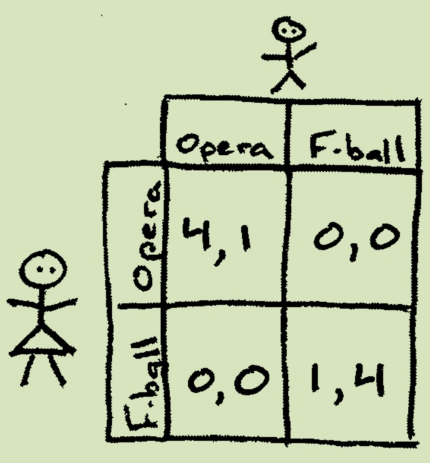
courses and instructors

Optimoinnin Perusteet: MS-C2105, Prof. Harri Ehtamo
Linear Programming: Mat-2.3139, Prof. Enrico Bartolini
Nonlinear Programming: Mat-2.3140, PhD Matteo Brunelli
Dynaaminen optimointi : Mat-2.3148, TkD Kimmo Berg
Integer Programming: Mat-2.4148, Prof. Enrico Bartolini
Optimoinnin Matemaattinen Teoria: Mat-2.4144, Prof. Harri Ehtamo
Multiple Criteria Optimization: Mat-2.4153, PhD. Matteo Brunelli
Peliteoria: Mat-2.3152, Prof. Harri Ehtamo

Game theory



duopoly game



battle of the sexes game

Systems Analysis Laboratory

Aalto University