

## VE477

### Introduction to Algorithms

#### Lab 7

Manuel — UM-JI (Fall 2017)

#### Goals of the lab

- Search algorithms
- Complexity vs. running time
- Python Programming

*Unless specified otherwise, all the programs are expected to be completed in Python.*

In this lab we want to fully implement the Simplex method. The use of external libraries is allowed as long as they only help in the work and do not directly solve the problems.

1. Implement the Pivot operation;
2. Implement the Simplex method;
3. Implement the initialisation on the Simplex method; In this part also decide whether to use the primal linear program or its dual.