1. Gurobi

import numpy as np

import gurobipy as gp

from gurobipy import GRB

import time

start = time.time()

Matrix10 = np.load(r'C:\Users\skqkr\Desktop\Semesterarbeit/Chiwan\_Q1.npz')

m = gp.Model()

Q = -Matrix10['Q']

q = Matrix10['p']

A = Matrix10['G']

b = Matrix10['h']

x = m.addMVar(10, lb=-GRB.INFINITY, ub=5000)

obj = x @ Q @ x + q @ x

m.setObjective(obj, GRB.MAXIMIZE)

m.addConstr(A@x >= b)

m.optimize()

print("time :", time.time() - start)

3. 100\*100

import numpy as np

import gurobipy as gp

from gurobipy import GRB

import time

start = time.time()

Matrix10 = np.load(r'C:\Users\skqkr\Desktop\Semesterarbeit/Chiwan\_Q3.npz')

m = gp.Model()

Q = -Matrix10['Q']

q = Matrix10['p']

A = Matrix10['G']

b = Matrix10['h']

x = m.addMVar(100, lb=-GRB.INFINITY, ub=5000)

obj = x @ Q @ x + q @ x

m.setObjective(obj, GRB.MAXIMIZE)

m.addConstr(A@x >= b)

m.optimize()

print("time :", time.time() - start)