**Data mining**

**Lab 11**

### Support Vector Machines

Your goal is to learn a SVM in the traditional dual formulation for the **iris-slwc.txt** dataset. This is a simple 2D dataset, consisting of 2 dimensions (the sepal length and width), and the third column is the class (+1,-1). One of the class corresponds to iris-setosa, and the other class to other types of irises.

Implement the gradient ascent algorithm 21.1 in chapter 21. Use ϵ=0.0001 and C=10, and hinge loss (k=1).

At the end, print all values of non-zero αi, i.e., for the support vectors, in the following format:

i,αi, one per line.