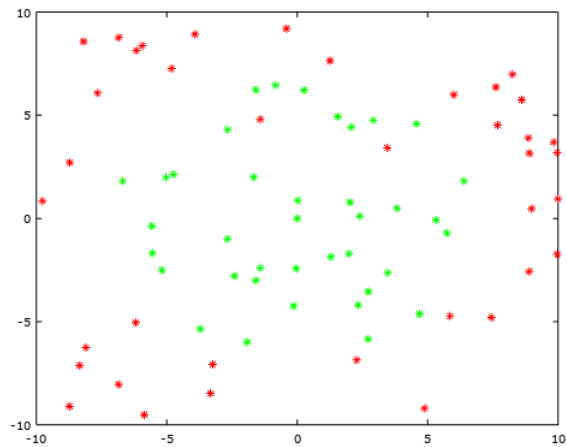


EXERCISE 5

DR. VICTOR UC CETINA

1. BINARY CLASSIFICATION THROUGH ADABOOST



- (1) Download the data file “dataCircle.mat” (or “dataCircle.txt” if you are not using matlab) which contains a matrix of size 102×3 . The first 40 rows are positive examples (label 1) of points in 2 dimensions. The last 62 rows are negative examples (label 0) also in 2 dimensions.
- (2) Implement in your favorite programming language the AdaBoost algorithm using as weak classifiers lines parallel to the x and y axis, so that you classify correctly both types of data.
- (3) Plot the data points using one color for each class of data. Also, plot the weak classifier lines.
- (4) Prepare a report containing your final model (including parameters), and your graph.

2. EXERCISE SUBMISSION

- Deadline: December 17-19, 2019.
- Note: Do not forget to include your names in the report!