Neural Network Theory and Applications
Homework Assignment 2

March 6, 2017
Due at March 20, 2017

The two-spiral problem is shown below.

1. Randomly decompose the two-spiral problem into 4 sub-problems and use a Min-Max Modular neural network to solve the two-spiral problem. Each sub-module is a multilayer quadratic perceptron (MLQP) network with one hidden layer.

2. Plot the decision boundaries of each trained sub-module and the Min-Max Modular neural network.

3. Compare the training time and generalization performance of the above Min-Max Modular neural network and the single MLQP networks trained in Homework Assignment 1.