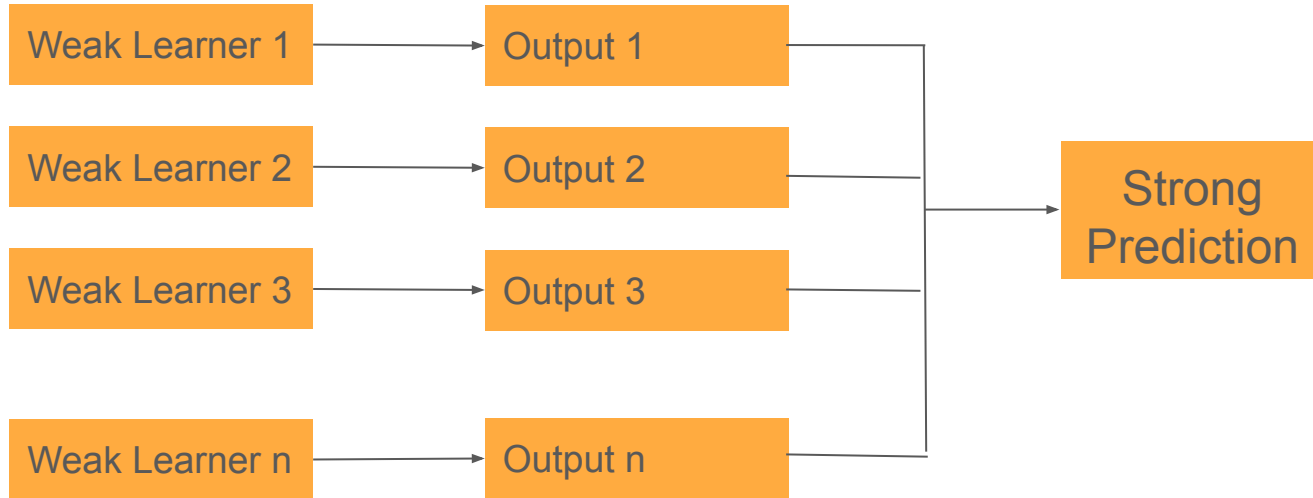


AdaBoost (Adaptive Boosting)

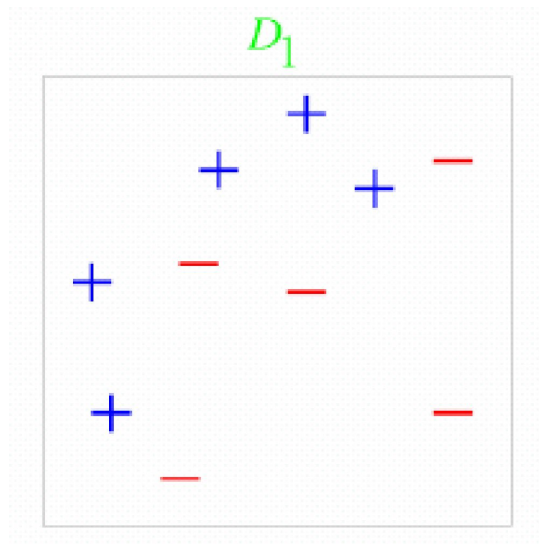
- Ensemble technique which combines many weak models into one strong model that performs better.



AdaBoost

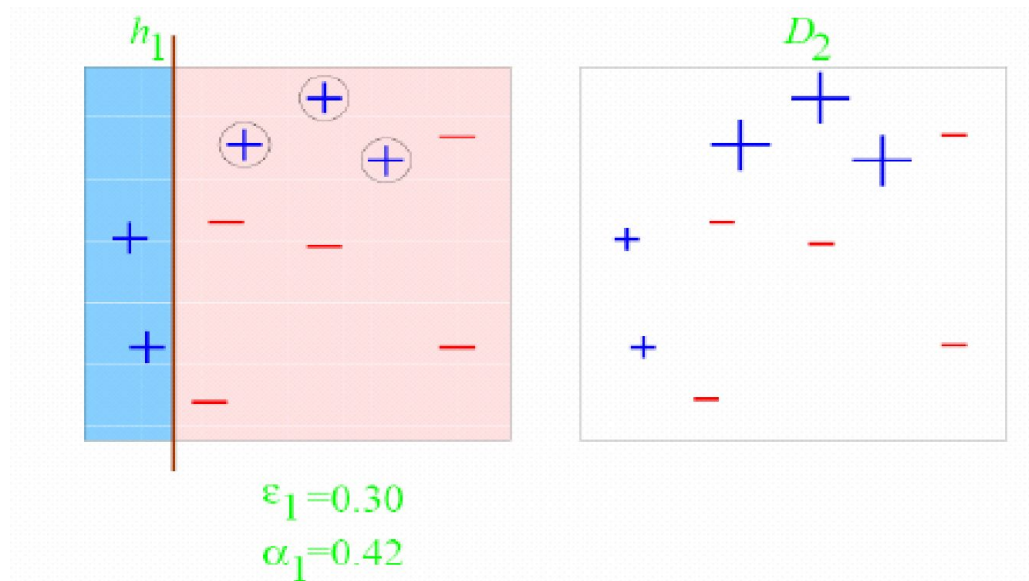
- Iteratively trains multiple weak learners
- Adjusts weights of misclassified samples
- Each learner focuses on previous errors
- Combines weak learners for strong prediction

AdaBoost



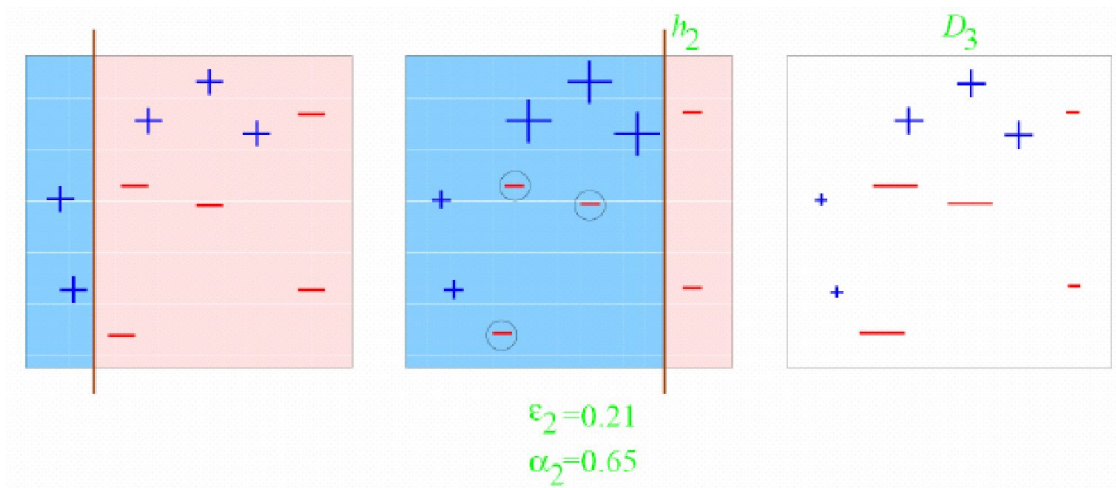
Training set: 10 points (represented
by plus or minus)
Original Status: Equal Weights for all
training samples

AdaBoost



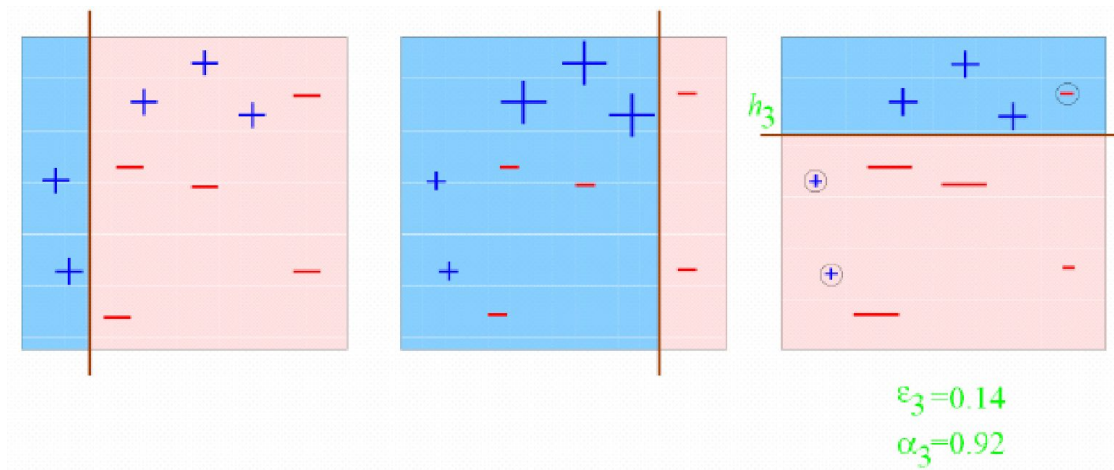
Round 1: Three “plus” points are not correctly classified;
They are given higher weights.

AdaBoost



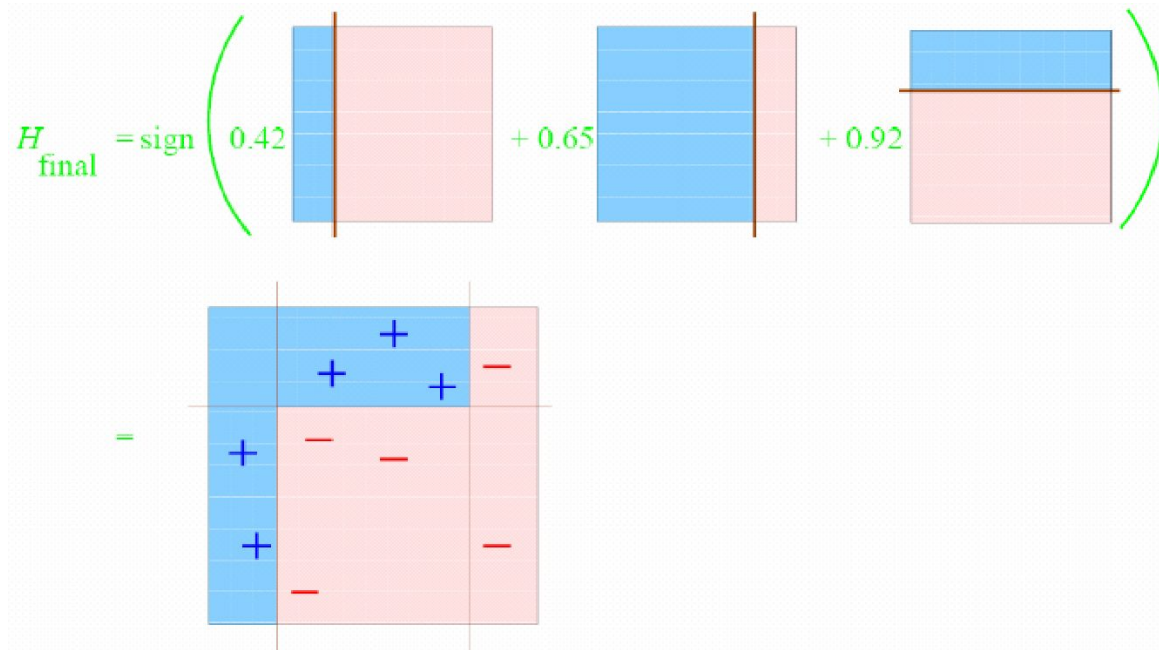
Round 2: Three “minus” points are not correctly classified;
They are given higher weights.

AdaBoost



Round 3: One “minus” and two “plus” points are not correctly classified;
They are given higher weights.

AdaBoost



Integrate the three “weak” classifiers and obtain a final strong classifier.