## Lecture 21: Multiclass Classification Ryan Rifkin

## **Description**

We consider the problem of multiclass classification. We have seen that regularization-based approaches (RLSC, SVM) perform very well on binary classification tasks, and we hope to extend this benefit to the multiclass scenario. We advance the hypothesis that a simple "one-vs-all" scheme is an extremely effective approach to multiclass classification. We review a number of other approaches, and present experimental comparisons.

## **Suggested Reading**

• Rifkin and Klautau, In Defense of One-Vs-All Classification, submitted to Journal of Machine Learning Research.