

LEC #	TOPICS
1	Introduction, linear classification, perceptron update rule ( <a href="#">PDF</a> )
2	Perceptron convergence, generalization ( <a href="#">PDF</a> )
3	Maximum margin classification ( <a href="#">PDF</a> )
4	Classification errors, regularization, logistic regression ( <a href="#">PDF</a> )
5	Linear regression, estimator bias and variance, active learning ( <a href="#">PDF</a> )
6	Active learning (cont.), non-linear predictions, kernels ( <a href="#">PDF</a> )
7	Kernal regression, kernels ( <a href="#">PDF</a> )
8	Support vector machine (SVM) and kernels, kernel optimization ( <a href="#">PDF</a> )
9	Model selection ( <a href="#">PDF</a> )
10	Model selection criteria ( <a href="#">PDF</a> )
11	Description length, feature selection ( <a href="#">PDF</a> )
12	Combining classifiers, boosting ( <a href="#">PDF</a> )
13	Boosting, margin, and complexity ( <a href="#">PDF</a> )
14	Margin and generalization, mixture models ( <a href="#">PDF</a> )
15	Mixtures and the expectation maximization (EM) algorithm ( <a href="#">PDF</a> )
16	EM, regularization, clustering ( <a href="#">PDF</a> )
17	Clustering ( <a href="#">PDF</a> )
18	Spectral clustering, Markov models ( <a href="#">PDF</a> )
19	Hidden Markov models (HMMs) ( <a href="#">PDF</a> )
20	HMMs (cont.) ( <a href="#">PDF</a> )
21	Bayesian networks ( <a href="#">PDF</a> )
22	Learning Bayesian networks ( <a href="#">PDF</a> )
23	Probabilistic inference Guest lecture on collaborative filtering ( <a href="#">PDF</a> )
24	Current problems in machine learning, wrap up