

Lecture 1: The Course at a Glance

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Description

We introduce and motivate the main theme of the course, setting the problem of learning from examples as the problem of approximating a multivariate function from sparse data. We present an overview of the theoretical part of the course and sketch the connection between classical Regularization Theory and its algorithms -- including Support Vector Machines -- and Learning Theory, the two cornerstones of the course. We mention theoretical developments during the last few months that provide a new perspective on the foundations of the theory. We briefly describe several different applications ranging from vision to computer graphics, to finance and neuroscience.
