Seminar on Combinatorial Computing
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Room 6417, Graduate Center
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Combinatorial measures of expressive power in computational learning theory

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Abstract

In this talk I will discuss some probabilistic models of learning. I will, in particular, explore the extent to which the sample complexity (the number of training examples needed for accurate learning) can be quantified by measures of 'dimension' of the set of functions used to fit the training data. In the simplest case of classification problems, we have Valiant's PAC model and the appropriate dimension is the VC-dimension. For regression problems, where we are required to fit a real-valued function to the data, there are various ways of developing models similar to the PAC model, and other type of dimension come into consideration.

For further information contact Janos Pach at pachcims.nyu.edu, or visit our website: http://cs.gc.cuny.edu/ pach/