

Problem of Statistical Inference in High Dimensional Spaces

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In this talk I will try to show that:

Classical methods of statistical inference based on idea of function estimation. They lead to the curse of dimensionality.

Statistical Learning methods of inference based on idea of functional estimation. They overcome the curse of dimensionality. Methods of Statistical Learning can generalize well in very high dimensional spaces.

New real world problems such as image understanding, information retrieval, micro-array analysis require generalization in very high dimensional spaces (10,000 - 100,000).

Existing Statistical Learning algorithm can successfully solve such problems.