Lecture 13: Approximation Theory
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Description

This class is devoted to the study of the approximation error, and some of its general properties. We will present the well known phenomenon of "the curse of dimensionality" and show that, when the dimensionality of the inputs is high, the numbers of units and samples that are needed to guarantee good results are huge, unless we impose some restrictions on the class of function to be approximated.

Suggested Reading

- P. Niyogi and F. Girosi. **On the Relationship between Generalization Error, Hypothesis Complexity, and Sample Complexity for Radial Basis Funtions**. Neural Computation, Vol 8, 819-842, 1996.
- G. G. Lorentz. **Approximation of functions** Chelsea Pub Co., 1986.
