Optimal Prediction Measures

Len Bos [a]

[a] Department of Computer Science, University of Verona (Italy)
leonardpeter.bos@univr.it

Suppose that $K \subset \mathbb{C}^d$ is a compact set. For data given on K it is possible, by means of polynomial regression, to *predict* (or extrapolate) a value at a point z_0 *exterior* to K. An optimal prediction measure is the probabilty measure on K which describes the data distribution on K for which the predicted value has least variance.
We will discuss this problem and its relation to another classical approximation problem, give some examples, and discuss some conjectures and open problems.