

Computing optimal sampling points for polynomial and kernel-based approximations

Rodrigo Platte, Arizona State University

In this talk we explore strategies for computing optimal sampling points for approximation of functions. The goal is to find nodes that minimize the Lebesgue constant on a given domain. This can be done by using a greedy algorithm that adds one point per iteration or by direct optimization of the node density function. Polynomial and RBF expansions are considered.