

1133-41-55

Joe Ward* (jward@math.tamu.edu), jward@math.tamu.edu. *Inverse Estimates for Compact Domains in R^d Using Localized Kernel Bases.*

This talk will discuss inverse estimates for finite dimensional spaces arising in radial basis function approximation and meshless methods. The inverse estimates we consider control Sobolev norms of linear combinations of a localized basis by the L_p norm over a bounded domain. These estimates are valid for Matern and polyharmonic families of radial basis functions. The localized basis is generated by forming certain local Lagrange functions.

This talk is based on joint work with T. Hangelbroek, F. J. Narcowich and C. Rieger. (Received July 18, 2017)