

ON THE CHARACTERIZATION OF APPROXIMATION SPACES IN NONLINEAR APPROXIMATION

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An overview of old and new results in Nonlinear Approximation Theory will be presented and several open problems will be discussed. The emphasis will be placed on nonlinear n -term approximation from localized frames in various settings such as on the sphere, ball, box and simplex as well as on Lie groups and Riemannian manifolds. Nonlinear approximation from multivariate splines will also be considered. This talk will focus on the characterization of the rates of nonlinear approximation of interest and the related smoothness spaces.