

Uniform function estimation under general smoothness

We discuss the stable summation of orthogonal series, based on random noisy coefficients, in the uniform norm. This is a classical ill-posed problem. In the present study we extend previous results to general source conditions. This highlights specific features and enables us to treat moderately, mildly and severely ill-posed cases in a unified way. Of special importance will be smoothness given by super-multiplicative index functions. The study is accomplished by the issue of adaptation.