

Master's Seminar banner

"The Optimal Rate of Deconvolution Problems"

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Eckhart Hall, Room 110, 5734 S. University Avenue

ABSTRACT

The deconvolution problem is to estimate the density f of a random variable X based on n i.i.d. observations from $Y = X + e$, where e is a measurement error with a known distribution. Fan (1991, 1993) found the local and global optimal rate of deconvolution and shows that the rate depends on the smoothness of the error distributions: the smoother, the harder. Also the optimal rates are attained by deconvolution kernel density estimators.