

DENSITY ESTIMATION FROM CONTAMINATED OBSERVATIONS

by

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In this talk, we consider the problem of estimating a probability density function when independent data from the density are contaminated by additive measurement error. We introduce an automatic empirical deconvolution procedure and study its properties. The assumptions placed on the density to be estimated are mild and do not include smoothness conditions. The resulting density estimator has wide-ranging optimality properties and we study some of them. In addition, the results of a simulation study are reported to examine the practical merit of the procedure.