

The Le Cam distance between density estimation and the Gaussian white noise model in the case of small signals

Abstract:

It is well-known that density estimation is asymptotically equivalent in the sense of Le Cam to a suitable Gaussian white noise model, provided that the density is smooth enough and uniformly bounded away from zero. We study the case when the latter assumption does not hold and the density is possibly small. We quantify how small the density can be for asymptotic equivalence to still hold. This is joint work with Johannes Schmidt-Hieber.