

# Nonparametric estimation of $s$ -concave and log-concave densities: an alternative to maximum likelihood

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by

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**Abstract:** I will discuss the Maximum Likelihood Estimators (MLEs) of log-concave and  $s$ -concave densities on  $\mathbb{R}$  and  $\mathbb{R}^d$ , and review some of the properties of these estimators both good and bad. I will also discuss recent results for the Rényi divergence estimators proposed by Koenker and Mizera (2010). (Based on joint work with Charles Doss, Qiyang (Roy) Han, and Arseni Seregin.)