## Kernel characteristic function estimation with applications

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The characteristic function (cf) of a distribution appears in the solution of many non-parametric problems; therefore, to give an eventual solution to those problems, it is necessary to estimate it. In the talk we will give an overview of the existing methods for cf estimation, including some recent advances about the kernel cf estimator, and we will also provide two applications of the considered methods for two different, but related, nonparametric problems.