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Nonparametric Estimation of Conditional Expected Shortfall

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Olivier Scaillet "Nonparametric estimation of conditional expected shortfall", Revue Assurances et gestion des risques/Insurance and Risk Management Journal, 72, (2005), 639-660.

Abstract:

We consider a nonparametric method to estimate conditional expected shortfalls, i.e. conditional expected losses knowing that losses are larger than a given loss quantile. We derive the asymptotic properties of kernal estimators of conditional expected shortfalls in the context of a stationary process satisfying strong mixing conditions. An empirical illustration is given for several stock index returns, namely CAC40, DAX30, S&P500, DJI, and Nikkei225.