
On some depth based risk measurement for high risks

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Résumé

An important problem in risk theory is to understand the behavior of an expected cost associated to $d \geq 1$ risk factors which are heterogeneous in nature. We proposed in a recent work, a depth-based Covariate-Conditional- Tail-Expectation (CCTE) in order to quantify a loss knowing that a given risk scenario occurred: considering the level sets of a depth as risk regions allows to define a direction-free CCTE. In the latter paper, we proposed an estimator of a depth-based CCTE and derived consistency results for fixed levels of risk. In a new study, we analyze the asymptotic behavior of this estimator as the risk level decreases, meaning that we study consistency of this risk measure for high risks.

Mots-Clés: depth, high risks, CCTE

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