



Empirical tail conditional allocation and its consistency under minimal assumptions

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Abstract

Under minimal assumptions, we prove that an empirical estimator of the tail conditional allocation (TCA), also known as the marginal expected shortfall, is consistent. Examples are provided to confirm the minimality of the assumptions. A simulation study illustrates the performance of the estimator in the context of developing confidence intervals for the TCA. The philosophy adopted in the present paper relies on three principles: easiness of practical use, mathematical rigor, and practical justifiability and verifiability of assumptions.

Keywords Tail conditional allocation · Marginal expected shortfall · Inference · Order statistic · Concomitant

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