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Limit Behavior of the Expected Esscher Transform

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Abstract

We present two limit theorems describing convergence of the expected (averaged) Esscher transform to the essential supremum of the variable under transformation when transformation's parameter tends to plus infinity as well as convergence of the same object to the essential infimum of the variable under transformation when transformation's parameter tends to minus infinity.

Keywords: (Expected/averaged) Esscher transform, Esscher premium, Limit behavior, Essential supremum, Essential infimum, Insurance premium.

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