

ON THE MARTINGALE PROPERTY OF STOCHASTIC EXPONENTIALS

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Abstract

We present a necessary and sufficient condition for a stochastic exponential to be a true martingale. It is proved that the criteria for the true martingale property is related to whether a related process explodes. Applications of our theorem to problems arising in mathematical finance are also given.

Keywords: Explosion; Martingale Property; Equivalent Local Martingale Measures.

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