

An Anatomy of Asset Returns^{*}

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Abstract

A semi-martingale decomposes asset returns into a drift, volatility and jump components. With a novel methodology based on half-power auto-covariances, we decompose the observed return into these three components using high-frequency data. Moreover, we derive an estimator of the integrated leverage effect. The technique can be used to reveal which kind of returns contributes more to the total cumulative return. For example, SP500 is found to be dominated by jumps, while NASDAQ is found to be dominated by drift.

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