

STATISTICS COLLOQUIUM

MONDAY, NOVEMBER 17, 2008

Talk: 4:00 PM – *Science Center 309*

Reception: 5:15 PM – *Science Center, 7th Floor*

“Jump Activity in High Frequency Financial Data”

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ABSTRACT

We propose statistical tests to discriminate between the finite and infinite activity of jumps in a semimartingale discretely observed at high frequency.

The two statistics allow for a symmetric treatment of the problem: we can either take the null hypothesis to be finite activity, or infinite activity. When implemented on high frequency stock returns, both tests point towards the presence of infinite activity jumps in the data. We then define a degree of activity for infinitely active jump processes, and propose estimators of that degree of activity.