

## DIPARTIMENTO DI FISICA E CHIMICA - DiFC

Direttore: prof.ssa Stefana Milioto



## Time series based analysis of a limit order book

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## Roberto Mota Navarro<sup>1</sup>

1. Institute of Physics, National Autonomous University of Mexico, Mexico.

We present preliminary results of the analysis of order book data from the Bitcoin/USD exchange market by means of a time series approach. Correlations in the first neighbors differences between asks and bids and autocorrelations in the same side of the book were measured, as well as the distributions of such differences. Alongside these results, correlations between prices and volumes were also measured. Two basic models employing mutually avoiding random walks have been used as a control to discern trivial behavior from non-trivial behavior in some of the measurements obtained.

