



THE UNIVERSITY OF
CHICAGO

Department of Statistics
MASTER'S THESIS PRESENTATION

CHENJIANG QIAN

Department of Statistics
The University of Chicago

**Estimation of GARCH Parameter Using Realized
Volatility**

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ABSTRACT

Traditionally, the parameters of GRACH model are estimated by daily return with quasi maximum likelihood estimation (QMLE) or maximum likelihood estimation with Student-t distribution. This paper uses intraday high-frequency data to estimate the GARCH model. In addition, estimation methods will be generalized, too. Simulation study compares the result between a proxy using realized volatility with a proxy using absolute return, which shows a well-chosen proxy may reduce the variances of the estimators.

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