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MASTER'S THESIS PRESENTATION

A comparison of semi-nonparametric bootstrapping approaches with nonparametric index estimations for determining value-at-risk

WHEN
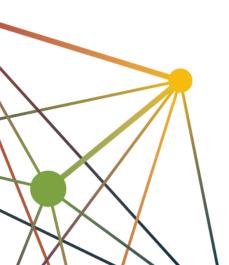**November, 1, 2021**
1:00 PM, CST

WHERE
Via ZOOM
ZOOM information will be provided in the email announcement for this seminar.

Qiqi Xu, MS candidate

With the outbreak of COVID-19, the financial market has been affected substantially during the past 2 years. The market went through freefall during March 2020 and then a boom due to the various types of support from the Federal Reserve System (FED). The purpose of this paper is to compare different methods of value-at-risk (VaR) estimations with recent data from three futures contracts, especially from the time when market is stressed, including semi-nonparametric bootstrapping approaches with a GARCH(1,1) model, unconditional density, and an extreme value theory (EVT) model and nonparametric index estimators, such as the Hill estimator (1975) and the De Haan and Resnick (1980) estimator. The results indicate the semi-nonparametric bootstrapping approaches with the GARCH(1,1) model and the unconditional density perform the best.

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