# Faculty of Business Administration

## SEMINAR SERIES No. 14/0910
### *Economics*

## "Estimation of High-Frequency Volatility: Autoregressive Conditional Duration Models versus Realized Volatility Methods"

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## Abstract

We propose a method to estimate intraday volatility by integrating the instantaneous return variance per unit time obtained from the autoregressive conditional duration (ACD) model. A semiparametric method is used to estimate the conditional expected duration equation, which is assumed to follow the augmented ACD (AACD) model. We compare the daily volatilities estimated using the AACD model against several versions of the realized volatility methods, including the bipower variation realized volatility with subsampling, the realized kernel estimate and the duration-based realized volatility. The AACD volatility estimates correlate highly with and performs very well against the realized volatility estimates. A clear advantage of our method is that it can be used to estimate intraday volatilities over intervals such as an hour or 15 minutes.

Date:        February 2, 2009 (Tuesday)

Time:        14:00 – 15:30

Venue:        J211

**ALL ARE WELCOME!**