



The University of Chicago  
Department of Statistics

Seminars for Second Year Ph.D. Students

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**Some Recent Approaches to Modeling Durations in Time Series**

**WEDNESDAY, April 14, 2010, at 4:00 PM**  
**110 Eckhart Hall, 5734 S. University Avenue**

**ABSTRACT**

Classical time series analysis focuses on data observed at regularly spaced intervals (durations). However, in many physical and economic processes observations are made at random intervals and the duration between observations affects the distribution of the observations. I will look at some recent approaches to time series analysis that view the series of durations as a marked point process and model its conditional intensity. I will pay particular attention to the mixed proportional hazards model and the autoregressive conditional duration model. I will discuss the development and application of these models with some mention of how they perform on stock data. Lastly, I will contrast the approach of modeling conditional intensity versus specifying the unconditional distribution of the intensity.