Dale W.R. Rosenthal

2421 University Hall
601 S. Morgan (MC 168)
Chicago, IL 60607
daler@uic.edu

Academic Experience

University of Illinois at Chicago. Chicago, IL — July 2008–present
Assistant Professor, Department of Finance

The University of Chicago. Chicago, IL — Fall 2004–Spring 2008
PhD Student, Department of Statistics
- Head TA: Financial Data Analysis (twice), Applied Regression Analysis
  - Included advising and grading final projects (simple alpha strategies).
- Sole TA/Ad-hoc Lecturer, Statistical Inference for Financial Data
  - Gave half of lectures; focused on market microstructure and electronic trading.
- Sole TA: Linear Models and Experimental Design, Design and Analysis of Experiments

Education

The University of Chicago. Chicago, IL
Ph.D. in Statistics (specialization in financial econometrics) — September 2008
Dissertation: Trade Signing and Nearly-Gamma Random Variables
Committee: Per Mykland (Advisor), Stephen Stigler, David Modest

Cornell University. Ithaca, NY
B.S. in Electrical Engineering — May 1995

Fellowships and Awards

- Inaugural Plotnick Fellowship. Physical Sciences Division, The University of Chicago — 2004–2008
- Nominee, Physical Sciences Division annual teaching prize, The University of Chicago — 2007
- Travel Award, Kent-Purdue Minisymposium on Mathematical Finance, Kent, OH — Spring 2007
- Admitted with full funding, Institute for Computational Economics, Argonne, IL — Summer 2005

Research Interests

- Financial market microstructure, especially electronic trading and liquidity effects
- Analysis of multivariate high-frequency financial time series
- Applications of random effects models to financial data
- Dynamic modeling of the trading process and market microstructure
- Incentives induced by financial industry pay and fee structures
- Likelihood asymptotics for market phenomena

Publications

- "Data Delays, Index Deletions, Prepayments, and Defaults." Submitted.
- "Modeling Trade Direction." Working paper.
- "Randomly-Delayed Autoregressive Time Series." Working paper.

- "Fast Approximate Mean-Expected Shortfall Portfolio Optimization." Working paper.
- "A Theory of Fat Tails in Commodity Returns." Working paper.

Presentations

- "Modeling Trade Direction." University of Illinois at Chicago. February 2008
- "Modeling Trade Direction." Illinois Institute of Technology. January 2008
- "Trade Signing and Nearly-Gamma Random Variables." Stevanovich Center for Financial Mathematics Seminar Series, The University of Chicago. December 2007
- "Critique of *Liquidity Risk and Arbitrage Pricing Theory* by Çetin, Jarrow, and Protter (2004)." Second-year Statistics Ph.D. Mini-seminars, The University of Chicago. March 2006

Industry Experience

Self-employed. Chicago, IL June 2004–August 2004

- Gathered data from myriad sources; computed daily metrics; and, calculated expected alphas
- Traded 6×6 name long-short equity portfolio to minimize time skew and market impact; hedged excess market risk with ETFs.
- Made 23% return (despite 18% cash reserve); daily P&L volatility of 1.4%.

Morgan Stanley. New York, NY March 2000–September 2003

Proprietary Researcher/Trader, Equity Trading Lab

- Estimated alphas, researched hedge, and traded all sections of index rebalance trade.
- Modeled market impact via three datasets: 1.5MM US ticks, 4MM European ticks, and 250k real trades.
- Analyzed ECN transactions to measure hidden liquidity, execution speed, and depth.
- Analyzed market maker transactions to measure speed, depth, and auto-execution probability.
- Developed trading decomposition into noise and skill, allowing execution analysis with 75% less data.
- Researched/automated trading of guaranteed benchmark (VWAP/close/part-day) and facilitation orders.

Long-Term Capital Management. Greenwich, CT June 1995–February 2000

Strategist, Equity Derivatives

- Structured optimal equity baskets for index arb and synthetic hedging of CBs/warrants.
- Assisted with trading Japanese warrant strategy.

Goldman Sachs. New York, NY September 1993–August 1994

Intern Programmer/Analyst, Listed Equities (Block Trading Desk)

Memberships

- Econometric Society 2005–present
- Institute of Mathematical Statistics (IMS) 2005–present
- American Statistical Association (ASA) 2005–present
- Society for Industrial and Applied Mathematics (SIAM) 2007–present
- Society for Financial Studies (SFS) 2007–present
- American Finance Association (AFA) 2007–present
- Society for Financial Econometrics (SoFiE) 2008–present