

Dale W.R. Rosenthal

Department of Statistics
The University of Chicago
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EDUCATION

The University of Chicago. Chicago, IL

Ph.D. in Statistics (specialization in financial econometrics)

expected June 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 (one of two chosen). Physical Sciences Division, The University of Chicago 2004–present
- 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.

TEACHING EXPERIENCE

- Head TA, Financial Data Analysis (Stat 339/FinMath 331) Fall 2007
- Sole TA, Statistical Inference for Financial Data (Stat 338) Winter 2007
 - Lectured for half of classes; focused on market microstructure and electronic trading.
- Head TA, Applied Regression Analysis (Stat 224/HealthSt 324) Fall 2006
- Sole TA, Linear Models and Experimental Design (Stat 222) Spring 2006
- Sole TA, Design and Analysis of Experiments (Stat 345) Winter 2006
 - Critiqued code and wrote exemplar for estimating random effects via PL and REML.
- Head TA, Statistical Inference and Applications to Trading (FinMath 333) Spring 2005
 - Advised on and graded all final projects (implementations of simple alpha strategies).
- TA, Statistical Methods and Applications (Stat 220) Fall 2004

Dale W.R. Rosenthal (continued)

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 decomposition of trading performance into noise and skill components, allowing analysis of execution with 75% less data.
- Researched/automated trading of guaranteed benchmark (VWAP/close/part-day) orders and facilitation of customer orders.

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

Strategist, Equity Derivatives

- Wrote programs to create optimal equity baskets for index arb and synthetically hedging 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)

PRESENTATIONS

- “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
- “Review of *A Study of the Augmented System and Column-Splitting Approaches for Solving Two-Stage Stochastic Linear Programs by Interior-Point Methods* by Czyzyk, Fourer, and Mehrotra (1995).” Industrial Engineering and Management Science, Northwestern University. March 2006
- “Review of *A New Statistic for Influence in Linear Regression* by Peña (2005).” First-year Statistics Ph.D. Mini-seminars, The University of Chicago. May 2005

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