Dale W.R. Rosenthal

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Academic Experience

University of Illinois at Chicago. Chicago, IL — July 2008–present
Assistant Professor, Department of Finance.
Market Microstructure and Electronic Trading. Fall 2008
- Created and taught new course; one of few such courses, only course covering algorithmic trading.
- Course attracted Northwestern PhD students and paying local practitioners.

Investments. Spring 2009
Commodity and Related Markets. Spring 2009
- Created and taught new course; attracted paying local practitioners.
- Only comprehensive (ag/softs, metals, energy, weather, shipping, emissions) course offered in the US.
- Arranged trips to an ethanol refinery, cogeneration plant, CME, and a hydroelectric plant.

R/Finance Conference. Spring 2009
- Co-organized first US conference on use of *R* for financial problems.
- Attracted 200 academics and practitioners (including TARP managers) from around the world.
- Received corporate sponsorship in first year resulting in profit and conference endowment.

Education

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

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

Fellowships and Awards

- Inaugural Plotnick Fellowship. Physical Sciences Division, University of Chicago — 2004–2008
- Admitted with full funding, Institute for Computational Economics, Argonne, IL — Summer 2005
- Nominee, Physical Sciences Division annual teaching prize, University of Chicago — 2007
- Travel Award, Kent-Purdue Minisymposium on Mathematical Finance, Kent, OH — Spring 2007
- Travel and Expenses Award, Oxford-Man Institute, Oxford (UK) — Fall 2008
- Travel Award, Society for Financial Econometrics, Geneva (Switzerland) — Spring 2009

Research Interests

- Financial market microstructure, especially electronic trading and liquidity
- Analysis of high-frequency multivariate financial data
- Commodity and related (weather, emissions, shipping) markets
- Effects of financial distress and industry payment structures

Publications

- "Modeling Trade Direction." Submitted.
- "Approximating Correlated Defaults for Credit Default Swaps and Options." Working paper.
- "Performance Metrics for Algorithmic Traders." Working paper.
- "A Network Model of Counterparty Risk." Working paper.

Presentations

- "Counterparty and Other Non-Random Risks" (invited presentation). International Statistical Institute meeting, Durban, South Africa. — August 2009
- "Approximating Correlated Defaults for Credit Default Swaps and Options." Society for Financial Econometrics European conference, University of Geneva. — June 2009
- "Modeling Trade Direction." Midwest Finance Association meeting, Chicago. — March 2009
- "R in Finance" (panel discussion). Midwest Finance Association meeting, Chicago. — March 2009
- "Fat Tails in Commodity Returns" and "Approximating Correlated Defaults." CME Group University Research Roundtable, Chicago Mercantile Exchange. — November 2008
- "Modeling Trade Direction." Conference on Financial Econometrics and Vast Data, Oxford-Man Institute for Quantitative Finance, University of Oxford (UK). — September 2008

Industry Experience

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

- Gathered data from multiple sources; computed daily metrics; and, calculated expected alphas.
- Traded 6×6 name long-short equity portfolio to minimize market impact; hedged excess market risk.
- 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

- Researched and traded index rebalances, guaranteed benchmark, and facilitation.
- Modeled market impact; analyzed and modeled execution quality across venues.

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, Institute of Mathematical Statistics (IMS), American Statistical Association (ASA), Society for Financial Studies (SFS), American Finance Association (AFA), Society for Financial Econometrics (SoFiE)

Technical Skills

- Analysis: *R*/S-PLUS, Stata, SCA, SAS, Matlab, AMPL.
- Coding: Perl, C, C++ (incl. OOD/patterns), Tcl.