Yoonjung Lee

Operations Research and Industrial Engineering
Cornell University
Ithaca, NY 14850
E-mail: jlee@orie.cornell.edu
(607) 254-4825

EDUCATION

University of Wisconsin-Madison, Madison, Wisconsin

Ph.D. in Finance, Investment, and Banking, 2004
Ph.D. in Statistics, 2004
Dissertation Title:

1. Modeling the Random Demand Curve for Stock: An Interacting Particle Representation Approach
2. An Asymmetric Information Modeling Framework for Ultra-High Frequency Transaction Data via Non-Linear Filtering

Master of Science in Quantitative Finance, 2002

Florida State University, Tallahassee, Florida

Master of Science in Statistics, 1997

Ewha Women's University, Seoul, Korea

Bachelor of Science in Statistics with Minor in Economics, 1995

AWARDS AND HONORS

- Honored as the Best Teaching Assistant from the Department of Statistics (1999 and 2000): based on overall rating of course evaluations
- Best First Year Ph.D. Student Award in Probability Theory (1996)
- Highest GPA Award in the College of Arts and Science from the President of Korea (1995)
- Fellowship Award from Ewha Women's University Alumni Association (1991-1995)

TEACHING EXPERIENCE

(Visiting Assistant Professor)

Operations Research and Industrial Engineering, Cornell University

- Applied Financial Engineering, Spring 2005
- Engineering Probability and Statistics, Fall 2004

(Lecturer)

School of Business, University of Wisconsin-Madison
- Fixed Income and Derivative Securities, Spring 2004
- Continuous Time Finance Theory, Fall 2003

(Teaching Assistant)

School of Business, University of Wisconsin-Madison
- Fixed Income and Derivative Securities, Fall 2002
- Advanced Derivative Securities, Fall 2002

Statistics, University of Wisconsin-Madison
- Statistical Inference, Spring 2000
- Introduction to Biostatistics, Fall 1999
- Mathematical Statistics for Majors in Engineering, Fall 1997

Statistics, Florida State University
- Basic Probability Theory, Summer 1996
- Introduction to Business Statistics, Spring 1996

RESEARCH EXPERIENCE

- Designed an alternative Statistical Intrusion Detection System via filtering method with *Thomas G. Kurtz* and *Somesh Jha*, 2002
- Contributed to the development of econometric methods for estimating censored system of demand equations by implementing simulated maximum likelihood techniques with *Brian W. Gould*, 2001
- Developed stochastic modeling tools for inferring the location and effect of tumor suppressor genes with *Michael A. Newton*, 1998-1999

PROFESSIONAL WORKING EXPERIENCE

Pricing Analyst, Aquila Inc., Kansas City, MO, Summer 2001
- Created a new theoretical framework in pricing energy derivatives by incorporating risk aversion of investors and transaction costs of hedging.
- Implemented pricing models and optimal hedging strategies via Visual C++ program and provided ready-to-use excel worksheets for traders.

PUBLICATIONS AND WORK IN PROGRESS

1. Y. Lee, Modeling the Random Demand Curve for Stock: Interacting Particle Representation Approach (Working Paper).

2. Y. Lee, Optimal Transaction Policy of a Large Trader (Working Paper).

3. Y. Lee, Asset Valuation under Asymmetric Information (Working Paper).

4. M. A. Newton, and Y. Lee, Inferring the Location and Effect of Tumor Suppressor Genes by Instability-Selection Modeling of Allelic-Loss Data, Biometrics, 2000.

5. B. W. Gould, Y. Lee, and D. Dong, Household Size and Composition Impacts on Meat Demand in Mexico: A Censored Demand System Approach, submitted.

6. S. Jha, L. Kruger, T. G. Kurtz, and Y. Lee, and A. Smith, A Filtering Approach to Anomaly and Masquerade Detection, submitted.

CONFERENCE PRESENTATIONS

1. Probability Intern Program, University of Wisconsin-Madison, 2003

2. Joint Statistical Meeting, San Francisco, California, 2003. "Modeling the Random Demand Curve for Stock: Interacting Particle Representation Approach"

3. Filtering Theory and Application Conference, University of Alberta, Edmonton, 2002. "A Filtering Approach to Anomaly and Masquerade Detection"

4. Modeling and Simulation Environment for Critical Infrastructure Protection Conference, Washington DC, 2002. "Application of Filtering Method in Monitoring Unix System Calls"

RESEARCH INTERESTS

- Market Microstructure: Information Asymmetry and Optimal Trading Strategy of a Large Trader
- Demand Curve Estimation for Stock (Microeconomic Approach)
- Asset Pricing Model in an Illiquid Market
- Pricing Energy Derivatives under Transaction Costs of Hedging
- Parameter Estimation in Partially Observed Systems
- Theory of Stochastic Partial Differential Equation
- Singular Stochastic Control and Linear Programming

TEACHING INTERESTS

- Continuous Time Finance Theory
- Derivative and Fixed Income Securities
- Advanced Option Pricing and Financial Engineering
- Continuous Time Financial Economics
- Probability Theory
- Mathematical Statistics
- Biostatistics

MEMBERSHIP

- American Finance Association
- American Statistical Association
- Institute for Mathematics and its Applications

VISA STATUS

U.S. Permanent Resident

REFERENCES

Professor Thomas G. Kurtz
Dept. of Statistics and Mathematics
University of Wisconsin-Madison
480 Lincoln Drive
Madison, WI 53706
kurtz@math.wisc.edu
(608) 263-5563

Professor Mark J. Ready
Finance Department, School of Business
975 University Avenue
Madison, WI 53706
mjready@facstaff.wisc.edu
(608) 262-5226

Professor James E. Hodder
Finance Department, School of Business
975 University Avenue
Madison, WI 53706
jhodder@bus.wisc.edu
(608) 262-8774