CURRICULUM VITA

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AJAY SUBRAMANIAN

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EDUCATION

Cornell University, Ithaca, New York

Master of Science in Mathematics	May, 1997
Doctor of Philosophy in Applied Mathematics	May, 1998

Stony Brook University, Stony Brook, New York

Master of Arts in Physics	May, 1994

Indian Institute of Technology, Bombay

Bachelor of Technology in Engineering Physics	June, 1992

WORK EXPERIENCE

Susquehanna International Group, Bala Cynwyd, PA, USA

Quantitative Research Associate	January 1998-July 2001.

Georgia Institute of Technology, Atlanta, GA , USA

Assistant Professor of Finance	August 2001- May 2004

Georgia State University, Atlanta, GA, USA

Assistant Professor of Risk Management and Insurance	July 2004 – May 2007
Associate Professor (with tenure)	

of Risk Management and Insurance June 2007- January 2009

Bruce A. Palmer Associate Professor of Risk Management and Insurance January 2009-present

HONORS AND FELLOWSHIPS

• First member of Indian team and bronze medalist at the XXX International Mathematical Olympiad (Braunschweig, Germany)

• Recipient of one of four research fellowships in theoretical physics awarded all over India by the Jawaharlal Nehru Centre for Advanced Scientific Research.

RESEARCH INTERESTS: Asset Pricing, Corporate Finance, Mathematical Finance, Applied Probability.

PUBLICATIONS: REFEREED SCHOLARLY (in chronological order)

- Dutta, B., N. Mukunda, R. Simon, and A. Subramanian (1993). Squeezed States, Photon Number Distributions, and U(1) Invariance. *Journal of the Optical Society of America B* 10, 2, 253-375.
- Steele, James, Ajay Subramanian, and Ismail Zahed (1995). General Correlation Functions in the Schwinger Model at Zero and Finite Temperature. *Nuclear Physics B: Particles and Fields* 452, 545-562*.*
- Resnick, Sidney and Ajay Subramanian (1998). Heavy-Tailed Hidden Semi-Markov Models. *Stochastic Models,* 14, 2, 337-352.
- Subramanian, Ajay (2001). European Option Pricing with General Transaction Costs and Short-Selling Constraints. *Stochastic Models,* 17, 2, 215-245.
- Subramanian, Ajay and Robert Jarrow (2001). The Liquidity Discount, *Mathematical Finance,* 11, 4, 447-474.
- Subramanian, Ajay (2004). Option Pricing on Stocks in Mergers and Acquisitions. *Journal of Finance,* 59, 2, 795-831.
- Jain, Ashish and Ajay Subramanian (2004). The Inter-Temporal Exercise and Valuation of Employee Options. *Accounting Review*, 79, 3, 705-743.
- Clarke, Jonathan and Ajay Subramanian (2006). Dynamic Forecasting Behavior

by Analysts: Theory and Evidence. *Journal of Financial Economics,* 80, 81- 113.

- Murthy, Nagesh, Milind Shrikhande, and Ajay Subramanian (2007). Switching Costs, Dynamic Uncertainty and Buyer-Seller Relationships. *Naval Research Logistics,* 54, 8, 859-873.
- Subramanian, Ajay (2007). Optimal Liquidation by a Large Investor. *SIAM Journal on Applied Mathematics,* 68, 4, 1168-1201.
- Giat, Yahel, Steven T. Hackman, and Ajay Subramanian (2009). Investment under Uncertainty, Heterogeneous Beliefs and Agency Conflicts. Forthcoming in the *Review of Financial Studies*

PUBLICATIONS: PROFESSIONAL/PRACTITIONER

- Jarrow, Robert and Ajay Subramanian (1997). Mopping up Liquidity, *Risk,* invited paper in the December 1997 special anniversary issue

WORKING PAPERS

- Fu, Richard and Ajay Subramanian (2009). Leverage and Debt Maturity Choices by Insiders*. Revise and Resubmit* at *Journal of Financial Intermediation.*
- Ciccotello, Conrad, Richard Fu, and Ajay Subramanian (2008). Commercializing Public Technology through Cooperative R&D. *Revise and Resubmit* at *Economics Letters.*
- Hu, Ping, Jayant Kale, Marco Pagani, and Ajay Subramanian (2009). Fund Flows, Performance, Managerial Career Concerns, and Risk-Taking. *Revise and Resubmit* at *Management Science*
- Giat, Yahel, Steven T. Hackman, and Ajay Subramanian (2009). Risk, Uncertainty and Optimism in Venture Capital Relationships
- .Bhagat, Sanjai, Brian Bolton and Ajay Subramanian (2009). Manager Characteristics and Capital Structure: Theory and Evidence.
- Sapra, Haresh, Ajay Subramanian and Krishnamurthy Subramanian (2009). Corporate Governance and Innovation: Theory and Evidence.
- Subramanian, Ajay, Anand Venkateswaran and Richard Fu (2009). Project Characteristics, Organizational Structure and Managerial Incentives.

- Giat, Yahel and Ajay Subramanian (2009). Dynamic Contracting under Imperfect Public Information and Asymmetric Beliefs
- Plehn-Dujowich, Jose and Ajay Subramanian (2009). Monopolistic Competition, Managerial Incentives and the Distribution of Firms in General Equilibrium
- Jung, Hae Won and Ajay Subramanian (2009). Dynamic Financing Under Asymmetric Beliefs
- Subramanian, Ajay (2008). Managerial Flexibility, Agency Costs and Optimal Capital Structure.

SELECTED REFEREED CONFERENCE and INVITED PRESENTATIONS

- **2009**
  - Manager Characteristics and Capital Structure: Theory and Evidence
    - Allied Social Sciences Association Meetings (San Francisco, CA)
    - Second Foundation of Advanced Research in Financial Economics (FARFE) conference in honor of Hayne Leland and Stephen A. Ross (Boston, MA)
    - Corporate Governance and Innovation: Theory and Evidence
      - NBER Law and Economics Program Meeting (Cambridge, MA)
- **2008**
  - Manager Characteristics and Capital Structure: Theory and Evidence
    - Western Finance Association Meetings (Waikoloa, HI)
    - Financial Intermediation Research Society Biennial Congress (Anchorage, AK)
    - Financial Management Association (European) Conference (Prague, Czech Republic)
  - Reputation Concerns and Effort Choices of Security Analysts: Theory and Evidence
    - Financial Management Association (European) Conference (Prague, Czech Republic)
  - Corporate Governance and Innovation: Theory and Evidence

    - NBER Corporate Finance Summer Institute (Boston, MA)
    - Conference on Empirical Legal Studies (Cornell University, NY)
    - Conference on Financial Intermediation at the Crossroads (Amsterdam, Netherlands)
    - Temple University
    - University of Colorado at Boulder
  - Risk, Uncertainty and Optimism in Venture Capital Relationships
    - Chicago-Minnesota Theory Conference
    - Oxford-Man Institute of Quantitative Finance
    - University of Colorado at Boulder
- **2007**
  - Fund Flows, Performance, Managerial Career Concerns, and Risk-Taking
    - Western Finance Association Meetings (Big Sky, MT)
  - Risk, Uncertainty and Optimism in Venture Capital Relationships
    - Stanford Institute of Theoretical Economics (SITE)
    - North American Summer Meetings of the Econometric Society (Duke University, NC)
    - Real Options Conference (Berkeley, CA)
- **2006**
  - Leverage and Debt Maturity Choices by Insiders
    - Financial Intermediation Research Society Meetings (Shanghai, China)
  - Risk, Uncertainty and Optimism in Venture Capital Relationships
    - Fields Institute for Mathematical Sciences, Toronto, Canada
    - University of Paris-Dauphine, Paris, France
    - ESSEC, Paris, France
- **2005**
  - Leverage and Debt Maturity Choices by Insiders
    - 2005 *Econometric Society* World Congress (London, U.K.)
  - Switching Costs, Dynamic Uncertainty and Buyer-Seller Relationships

        - Annual Meetings of the *Decision Sciences Institute* (San Francisco, CA)
    - Dynamic Forecasting Behavior by Analysts: Theory and Evidence
        - North American Winter Meetings of the Econometric Society (San Diego, CA).
- **2004**
    - Switching Costs, Dynamic Uncertainty and Buyer-Seller Relationships
        - Annual *Real Options* Conference (Georgetown University, Washington, D.C.)
    - Fund Flows, Performance, Managerial Career Concerns, and Risk-Taking
        - World Congress of the *Bachelier Finance Society (*Chicago, USA)
- **2003**
    - Power, Compensation, and Corruption: Theory and Evidence
        - Econometric Society North American Summer Meetings
    - The Inter-Temporal Exercise and Valuation of Employee Options
        - Econometric Society North American Summer Meetings (Evanston, USA)
    - Managerial Flexibility, Agency Costs and Optimal Capital Structure
        - American Finance Association Meetings (Washington, D.C., USA)
    - Fund Flows, Performance, Managerial Career Concerns, and Risk-Taking
        - Financial Management Association Meetings (San Antonio, USA)
- **2002**
    - Managerial Flexibility, Agency Costs and Optimal Capital Structure
        - *Financial Management Association* (Europe) Meetings (Copenhagen, Denmark)
        - International Conference on *Real Options* (Cyprus)
    - Switching Costs, Dynamic Uncertainty and Buyer-Seller Relationships
        - International Conference on *Real Options* (Cyprus)
        - Real Options Workshop (Krems, Austria)
    - Option Pricing on Stocks in Mergers and Acquisitions

        - Financial Management Association Meetings (San Antonio, TX)
        - Derivative Securities Conference (New York, NY)
- **2001**
    - Optimal Liquidation by a Large Investor
        - *INFORMS Applied Probability Society* Conference (New York, USA)

RESEARCH GRANTS

External Grants

- ***Kauffman Foundation***
    - Risk, Uncertainty and Optimism in Venture Capital Relationships (January 2007, $20000)
    - Technological Innovation through Public-Private Partnerships (January 2007, $10000)
    - Investment Under Uncertainty, Heterogeneous Beliefs, and Agency Conflicts (March 2008, $20000)
    - Dynamic Financing of Innovation (May 2009, $15000)

Internal Grants

- ***Robinson College of Business, Georgia State University***
    - Managerial Incentives, Financing, and Dynamic Investment (Summer 2005)
- ***Robinson College of Business, Summer Research Grant***
    - Financing and Debt Maturity Choices by Undiversified Owner-Managers (Summer 2006)
- ***Robinson College of Business, Summer Research Grant***
    - Risk, Uncertainty, Organizational Structure and Incentives (Summer 2007)
- ***Robinson College of Business, Summer Research Grant***
    - Risk, Uncertainty and Optimism in Venture Capital Relationships (Summer 2008)

TEACHING

- **Georgia Institute of Technology**
    - Introduction to Derivative Securities (undergraduate)
    - Derivative Securities (MBA and Master's students in Quantitative and Computational Finance)
    - Asset Pricing Theory (PhD students)
    - Game Theory (PhD students)

- **Georgia State University**
    - Introduction to Risk Management and Insurance (undergraduate)
    - Financial Risk Management (Master's)
    - Stochastic Interest Rate and Credit Risk Models (Master's)
    - Quantitative Risk Modeling (Master’s)
    - Stochastic Processes in Finance and Risk Management (PhD)
    - Game Theory and Mechanism Design (PhD)

SUPERVISION OF DOCTORAL STUDENTS

- Yahel Giat (2005). Asymmetric Beliefs, Agency Conflicts, and Venture Capital Investment.
    - School of Industrial and Systems Engineering, Georgia Institute of Technology (co-chair). Currently employed in Department of Industrial Engineering, Jerusalem College of Technology, Jerusalem, Israel.

- Richard Fu (2006). Financing and Debt Maturity Choices by Undiversified Owner Managers: Theory and Evidence.
    - College of Management, Georgia Institute of Technology (chair). Currently employed in Department of Finance and Accounting, College of Business, San Jose State University, San Jose, CA.
- Marco Pagani (2006). The Determinants of the Convexity in the Flow-Performance Relationship.
    - Dept. of Finance, Robinson College of Business, Georgia State University (committee member). Currently employed in Department of Finance and

Accounting, College of Business, San Jose State University, San Jose, CA.

- Puneet Prakash (2005). Absolute or Relative Standards: Which One Do Rating Agencies Follow.
  - Dept. of Risk Management and Insurance, Robinson College of Business, Georgia State University (committee member). Currently employed in Department of Finance and Insurance, College of Management, Virginia Commonwealth University.
- Yih Cheng Loon (2007).
  - Dept. of Finance, Robinson College of Business,Georgia State University (committee member). Currently employed in Department of Finance, Binghamton University.
- Zhiqiang Yan. (2009). Dept. of Risk Management and Insurance, Robinson College of Business, Georgia State University (chair). Currently employed in Department of Finance and Insurance, Western Illinois University.

SERVICE ACTIVITIES INTERNAL TO THE UNIVERSITY

- *Georgia Institute of Technology*
  - Member of Executive Committee of the *Quantitative and Computational Finance Program* (2002-2004)
  - Member of the Graduate Program Committee (2002-2003)
  - Member of PhD committee (2003-3004)
- *Georgia State University*
  - Member of Executive Committee of the *Mathematical Risk Management* Program (2004-2006)
  - Member of PhD program committee of the department of risk management and insurance (2004-2006)
  - Member of Faculty Recruitment Committee (2004-2006).
  - Coordinator of the PhD Program (2007-)
  - Member of Faculty Affairs Committee (2008-)
  - Chair of Faculty Recruiting Committees (2007,2009)

SERVICE ACTIVITIES IN ACADEMIC AND PROFESSIONAL ORGANIZATIONS

- Discussant at the 2001, 2002, and 2003 *International Finance Conferences* at the Georgia Institute of Technology.
- Chair of sessions and participant in special panel discussions at the *International Conferences on Real Options* (2002, 2003)
- Chair of session at the 2003 North American Summer Meeting of the *Econometric Society* (Evanston, IL)
- Chair of session at the 2005 *Econometric Society* World Congress (London, U.K.)
- Discussant at the 2008 *Financial Intermediation Research Society* Meetings (Anchorage, AK), 2009 *Econometric Society* Winter Meetings (San Francisco, CA)
- Discussant at the 2010 *American Finance Association* Meetings (Atlanta, GA, scheduled)
- *Western Finance Association* Program Committee (2010)
- Referee for *Journal of Finance, Operations Research, Journal of Financial and Quantitative Analysis, Journal of Economic Dynamics and Control, Journal of Financial Intermediation, Journal of Corporate Finance, Journal of Development Economics, Journal of Multinational Financial Management, Financial Services Review, Zeitschrift fur Betriebswirtschaft, Journal of Futures Markets, Review of Financial Economics, Financial Review, Applied Mathematical Finance, Optimal Control: Applications and Methods.*

CONSULTING

- Member of the Georgia State University academic review team to evaluate the Economic Capital Model of the American International Group (AIG) (2007-2008)

INDUSTRY EXPERIENCE

- **Susquehanna International Group**
  - Designed and developed a model to price municipal bonds and their embedded options

- Designed and developed a term structure model to price constant maturity (CMS) swaps and constant maturity treasury (CMT) swaps
- Designed and developed a model to price cross-currency exotic options
- Designed and developed a model to price convertible bonds