Curriculum Vitae

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RESEARCH INTERESTS

- Stochastic Control and Optimization
- Backward Stochastic Differential Equations
- Statistical and Computational Methods in Mathematical Finance

RESEARCH PAPERS & PUBLICATIONS

- *Delegated dynamic portfolio management under mean-variance preferences*, Journal of Applied Mathematics and Decision Sciences, vol. 2006, Article ID 61895, 22 pages, 2006.
- *Optimal acquisition of a partially hedgeable house* (joint work with Fernando Zapatero, Marshall Business School, USC); submitted for publication
- *A probabilistic numerical scheme for perturbed linear quadratic regulator problems*, in progress (to be split into three parts)
- *Asymmetric information, dynamic information production and initial public offerings*, (joint work with Rafiqul Bhuyan, California State University, San Bernardino); submitted for publication, also available in SSRN database.

PhD Thesis : Backward Stochastic Differential Equations with Quadratic Growth and Their Applications
Co-advisors: Prof. Jaksa Cvitanic and Prof. Jianfeng Zhang; July 2005

Masters Thesis: Comparison Theorems for Stochastic Differential Equations and Their Applications
Advisor: Prof. Alp Eden; June 2000

EDUCATION

2005 : **PhD. in Applied Mathematics**, University of Southern California (USC)
2004 : **Masters in Mathematical Finance**, University of Southern California
2000 : **Masters in Mathematics**, Bogazici University, Istanbul
1997 : **BS. in Mathematics**, Bogazici University, Istanbul

WORK EXPERIENCE

2006-2009 : **Assistant Professor of Mathematics and Statistics,** California State University, Sacramento
2005-2006 : **Mathematics Instructor** (as Irvine Fellow) at Whittier College
2005-2006 : **Adjunct Lecturer** in the Department of Mathematics, USC.
2000-2005 : **Teaching Assistant** (TA) in the Department of Mathematics, USC.
2004, Summer: **Financial Consultant** at TransGlobal Financial Corporation, Los Angeles
(software search and evaluation for risk management; tutorials for the employees)
2003, August : **TA Mentor,** USC. Instructed the new TA's in proper teaching etiquette at USC during the orientation program
2003, Summer: **Quantitative Analyst** at TransGlobal Financial Corporation, Los Angeles
(performed statistical methods for the current applications; applied mean-variance analysis)
1997-2000 : **Teaching Assistant** in the Department of Mathematics, Bogazici University
(both undergraduate and graduate courses as well as departmental assignments)
1998 Fall : **Coordinator Assistant** in the Department of Mathematics, Bogazici University
(helped the coordinator professor to organize the duties of graduate assistants)
1996-2003 : Privately tutored students in Math (including Quantitative sections of GRE and GMAT)

COURSES TAUGHT

CSU, Sacramento (2006-2009): Precalculus, Introduction to Statistics, Introduction to Probability and Statistics, Modern Business Mathematics, Intermediate Statistics, Introduction to Mathematical Statistics (Graduate)
Whittier College (2005-2006) : College Algebra, Quantitative Reasoning
USC (2005-2006) : Introduction to the Fundamentals of Calculus

COURSES ASSISTED (as TA/Grader)

Undergraduate Courses:
Calculus (I, II), Introduction to Finite Mathematics, Probability Theory, Statistics, Numerical Analysis, Partial Differential Equations, Calculus of Variations, Introduction to Complex Analysis

Graduate Courses:
Real Analysis, Applied Probability, Numerical Analysis, Stochastic Calculus for Finance, Financial Informatics and Simulation, Mathematical Methods in Physics and Engineering (I, II)

AWARDS & ACHIEVEMENTS

- SIAM Travel Award, SIAM, 2009
- Faculty Professional Development Award, CSUS, 2009
- Research and Creative Activity Award, CSUS, 2008
- Project/Activity Grant, The University Enterprises, CSUS, 2007
- Travel Award to attend SIAM Annual Meeting, SIAM, 2005
- Travel Award for Joint Mathematics Meeting, Department of Mathematics, USC, 2005
- Founder and the first president of USC Student SIAM Chapter, USC, 2004-2005
- Dissertation Fellowship, College of Arts & Sciences, USC, 2004-2005
- Outstanding Leadership Award, Office of International Services, USC, April 2003, 2004
- Continuous graduate assistantship at USC, 2000-2004
- AIM (American Institute of Mathematics) Travel Stipend, 2003
- C.W. Trigg Summer Fellowship, Department of Mathematics, USC, 2001
- Continuous graduate assistantship at Bogazici University, 1997-2000
- Summer School Fellowship, Bogazici University, 1996
- Ranked 227th in the nationwide university entrance test among nearly 800.000 applicants
- Ranked 1st in the graduating class from the high school

PROFESSIONAL AFFILIATIONS & EXTRA CURRICULAR ACTIVITIES

- **SIAM** (Society for Industrial and Applied Mathematics), *current member*
- **SIAM** Activity Groups on Mathematical Finance, on Dynamical Systems and on Control, *current member*
- **FMA** (Financial Management Association), *current member*
- **AMS** (American Mathematical Society)
- **IMS** (Institute of Mathematical Statistics)
- **ASA** (American Statistical Association)
- **TASSA** (Turkish American Scientists and Scholars Association)
- Referee for the academic journals **Mathematical Finance** and **Automatica**
- Faculty co-advisor of SIAM Student Chapter at CSU, Sacramento

COMPUTER SKILLS

- Programming Languages: Matlab, (Turbo) Pascal, C/C++
- Technical Software Packages: Mathematica, Minitab, Maple, MuPAD, S-Plus

CONFERENCE/COLLOQUIUM TALKS & ORGANIZATION

- *Optimal portfolio and stopping time problem for the acquision of a partially hedgeable house*, The Third Western Conference on Mathematical Finance (Invited Speaker), November 14, 2009, Santa Barbara
- *Asymmetric information, dynamic information production and initial public offerings,* presented at the FMA Annual Meeting in Reno (October 2009)
- *A Numerical Scheme for Certain Perturbed Stochastic Control Problems*, SIAM Conference on Control and Its Applications, Denver (July, 2009)
- *Optimal acquisition of a partially hedgeable house*, presented at SIAM Conference on Financial Mathematics and Engineering, New Brunswick, NJ (November 2008)
- Selected to chair the session "Statistics and OR II" at SIAM Conference on Financial Mathematics and Engineering
- *An introduction to mathematical finance I: Binomial model, notion of arbitrage and incomplete markets*, Math Club/SIAM Chapter Colloquium (October, 2008)
- *Optimal management of initial public offerings in the presence of asymmetric information,* Sacramento Statistical Association, 29th Annual Institute on Research and Statistics (April, 2008)
- *A probabilistic numerical scheme for perturbed linear quadratic regulator problem (June, 2007), SIAM Control Meeting, San Francisco*
- *Session Chair, Stochastic Control (June, 2007), SIAM Control Meeting, San Francisco*
- *Asymmetric information, dynamic information production and initial public offerings,* Sacramento Statistical Association, Institute on Research and Statistics (March, 2007; also presented by the co-author at FMA meeting in Orlando, FL in October 2007)
- *Forward-backward stochastic differential equations and their numerical applications (February, 2007),* Mathematics Colloquium, CSU, Sacramento
- *Delegated dynamic portfolio optimization under mean-variance preferences (March, 2006),* AIMS/Phimac Seminar, McMaster University
- *A housing application of hedging in incomplete markets (February, 2006),* Dept. of Mathematics & Statistics, CSU, Sacramento. Departmental Colloquium
- *Dynamic fund portfolio optimization under mean-variance preferences (January, 2006),* Joint Mathematics Meetings, AMS-SIAM Special Session on Theory and Application of Stochastic Differential Equations, II
- *Investor-manager portfolio management under mean-variance preferences (July, 2005),* Sixth SIAM Conference on Control and Its Applications
- *Fifth Southern California Applied Mathematics (SoCAMS) Symposium (April, 2005), Local Co-organizer*
- *USC SIAM Chapter Colloquium, Organizer (2004-2005).*