

PAC 2009		
Student	Dept.	Thesis Title
Anderson, Stuart	PHI	Defining and Regulating New Forms of Property: An Essay on Issues Raised by Terms of Service
Bayer, Ryan	ELE	Prefetching in Delay Tolerant Networks
Benitz, Patrick	CHE	Predicting Beta Sheet Topology A Statistical Approach to Optimize Hydrogen Bonding
Biller, Trevor	CHM	Electronic Effects of a Thin Film Titanium Dioxide on Electrodes for Photovoltaic Devices
Brasoveanu, Andrei	MAT	Uncovering A Lost Painting of Vincent Van Gogh
Dale, Todd	CHE	Dissipative Particle Dynamics: A Study in Coarse-Graining of Two-Phase Systems
David, Guy	MAT	A Modified Smoothing Lemma for C Interpolation
Ferguson, Ian	MAE	Manta Robot to Study Pectoral Fin Locomotion of Batoid Fish
Fishgrund, Sam	MAT	Kripke Models for Proof-Carrying Authentication
Franken, Gordon	MAE	Self-Sufficient Autonomous Sailboat for Trans-Atlantic Passage
Halperin, Bruce	ELE	Beyond Car Lab: Implementation of Multi-Car Real-Time Wireless Control Systems
Hammond, Michael	MUS	A Composition using LiLo for the Princeton Laptop Orchestra, So Percussion, Matmos, and Electric Guitar
He, Lucy	ORFE	Help is on the Way: Dynamic Optimization of the Emergency Medical Services System in the City of Philadelphia
Hu, Willie	ELE	Autonomous Ground Vehicle Navigation
Kadapakkam, Vittal	ECO	The Long and Short of Price Reactions
Kowal, Mike	ORFE	Volatility Trading: An Analysis of Strategies Under Various Market Scenarios
Klosterman, Katharine	ORFE	Systematic Handicapping of horse Races Using Regression and Applied Forecasting Techniques
Krueger, David	ELE	Quantum Cascade laser Spectroscopic Sensors for Distributed Trace Gas Sensor Networks
Lange, Jonathan	ORFE	An Analysis of the Effects of News on Stock Returns Using Support Vector Machines
Lee, Jennifer	ORFE	Patterns of Fuel-Efficient Truck Fleet Driving and Routing: Analysis of GPS Data from the 2008 Oil Bubble
Leiby, Kyle	ELE	Using Artificial Neural Networks for Handwritten Character Recognition
Liu, Stanley	ORFE	Is Big More Beautiful in Venture Capital Financing?
Liu, Hao	ELE	Firecoral: Bringing P2P to the Web
Love, John	ORFE	Empirical Analysis of Deviations From Option Market Prices using Stochastic Volatility Models
Lowden, Brandon	ELE	Binaural Extension of Sound Source Identification Software with Applications to Matching Listening
Malyshev, Anton	MAT	Quadratic Forms and Lattices with Conformal
Mayer, Jonathan	WWS	"Any person...a pamphleteer" Internet Anonymity in the Age of Web 2.0
Lu, Maddie	ELE	Physical Layer Security in Optical Systems

Lyons, Brendon	PHY	The Effect of Resistivity Profiles on the Growth Rate of the External Kink Instability
Negoescu, Diana	ORFE	Optimal Learning for Drug Design in Ewing's Sarcoma
O'Shea, Daniel	ELE	Analytical Derivation of Neuron-to-Neuron Connection Profile
Russell, Matthew	ORFE	Long-Term Performance and Option Pricing of Leveraged ETFs
Sanden, Katherine	MAT	Appollonian Circle Packings: A Prime Number Theorem
Scharf, Gordon	ORFE	GradeRank: A Mathematical Approach to Contextualizing Grades
Schnidman, Ari	MAT	Equidistribution of Wieferich Sequences
Stefanski, Mark	MAT	Private Data in the Public (Hyper) Sphere: Differential Privacy-Preserving Distance-Based Data Mining
Stern, Philip	ELE	Application of Machine Learning to Biological Systems Analysis
Snyders, Glenn	EEB	Land Use Among Maasai Pastoralists in Laikipia, Kenya
Szeto, Brandon	CHE	Computational Models for Locust Swarming Involving Informed Individuals
Tang, Matthew	ELE	Improving Blind Equalization for QAM Systems with Reliable Symbols and Modified Source Coding
Tzeng, Stephanie	ORFE	Agent-Based Computational Economics and the Banking Sector
Ungerer, Mark	ORFE	Endogenous and exogenous Shocks to a Social System: Tracking Artist Page Views and Music Sales
Vallabh, Suneil	MAT	On a List-Coloring Version of the Erdos-Faber-Lovasz Conjecture
Wang, Yao	ORFE	Lost Decade 1999-2008 The Cause for Multi-Strategy Investment Management
Whelchel, Sarah	HIS	Ceaselessly Musing: Analogies, Brains, and Computers in the Lives and Works of Norbert Wiener and Douglas Hofstadter
Wu, Jingyuan	ORFE	A Simulation-Based Analysis of Market Making
Yang, Cicy Siyu	ORFE	A Star Pattern Recognition Algorithm for Astronomical Images Using Triangles
Zhang, Shuo Damien	ECO	Evaluating CoVaR Models