

Doctorate of Philosophy in Mathematics Recipients
School of Mathematical Sciences
Claremont Graduate University

- Henok **Abebe** 2002
Modeling the Current-Voltage (I-V) Characteristics of the MOSFET Device with Quantum Mechanical Effects due to Thin Oxide near 'Si/SiO₂' Interface using Asymptotic Methods
(JDP with CSULB) Advisor: Ellis Cumberbatch
- Yontha **Ath** 2000
Stochastic Properties of Uniformly Optimally Reliable Networks (and their Graphs)
Advisors: Milton Sobel (UC Northridge)
- Dariouch Herve **Babai** 1995
Models of HIV Mutations and Interaction with the Immune System using Differential Equations: Coupling "Diffusion," Specific and Global Interaction
Advisor: Kenneth Cooke
- Joseph **Beasley** 2008
Performance Feedback and Control of Solar Concentrators using Wave Front Sensing Techniques
(JDP with CSULB) Advisor: Hen-Geul Yeh
- Steven F. **Bellenot** 1974
Completeness and Reflexivity Properties in Topological Vector Spaces using Standard and Nonstandard Methods
Advisor: Sandy Grabiner
- Eric **Besnard** 1997
Prediction of High Lift Flows with Separation
(JDP with CSULB) Advisor: Tuncer Cebeci
- Ashish **Bhan** 2004
Structure of Gene Expression Networks Derived from Microarray Time Series Data
Advisor: Greg Dewey
- Theodoros Spyridon **Bolis** 1971
Differentiable Nuclear Manifolds
Advisor: Robert James
- Minh **Bui** 2005
Linear Phase Orthogonal Filter Bank Constructions with Applications to Image and Geometric Approximations
(JDP with CSULB) Advisor: Nick Panagiotacopoulos

- Todd **Cadwallader-Olsker** 2007
Proof Schemes and Proof Writing
 Advisor: John Angus
- Juan **Cepeda-Rizo** 2006
Solid and Fluid Mechanics Case Studies in Advanced Electronic Packaging
 (JDP with CSULB) Advisor: Hsien-Yang Yeh
- Paul O. **Chelson** 1976
Quasi-Random Techniques for Monte Carlo Methods
 Advisor: Jerome Spanier
- Michael R. **Chiaro** 1977
- Cherlyn Lee **Converse** 1992
Lower Bounds for the Maximum Number of Stable Pairings for the General Marriage Problem Based on the Latin Marriage Problem
 Advisor: Henry A. Krieger
- Jack M. **Cuzick** 1976
On the Moments of the Number of Curve Crossings by a Stationary Gaussian Process
 Advisor: Jerome Spanier
- Yousef **Daneshbod** 2006
Mathematical Models in Microfluidics: Capillary Electrophoresis and Sessile Drop Physics
 Advisor: Ali Nadim
- Monica **de Pass** 2006
Wavelet Feature Extraction of High-Range Resolution Radar Profiles using Generalized Gaussian Distributions for Automatic Target Recognition
 Advisor: John Angus
- Mohamed Osman **El-Doma** 1986
Analysis of Nonlinear Integra-Differential Equations Arising in Age-Dependent Epidemic Models
 Advisor: Stavros Busenberg
- Azzam **Elshihabi** 1997
Disturbance Decoupling with Stability for Nonlinear Systems using Static/Output Feedback: A Geometric Approach
 (JDP with CSULB) Advisor: Fumio Hamano
- Claudia Rangel **Escareno** 2003
Modeling Biological Responses Using Gene Expression Profiling and Linear Dynamical Statistical Models
 Advisors: John Angus and David Wild (KGI)

- Mohammad (Al Ahmad) **Eyadat** 2003
Comparative Performance Evaluation of Practical Digital Watermarking Embedded Schemes
(JDP with CSULB) Advisors: Samir Chatterjee, Ali Nadim, Dar-Biau Liu
- Weifu **Fang** 1990
Identification of Transistor Contact Resistivity
Advisors: Ellis Cumberbatch and Stavros Busenberg
- Katherine **Fedorchuk** 2005
Condensed History Methods for Monte Carlo Solutions of Photon Transport Problems
Advisor: Jerome Spanier
- Michael E. **Frantz** 1995
On the Interaction of a Cold Front with a Mountain Ridge
Advisor: Ellis Cumberbatch
- Samuel H. **Fryer** 1988
Mathematical Models of Typhoid Fever
Advisor: Kenneth L. Cooke
- Scott **Gasner** 2006
Cellular Pattern Formation and Noise in $O(2)$ Symmetric Systems
Advisor: Peter Blomgren
- Chris Giles **Graham** 1996
Cooperative Solution Concepts for Multi-Sided Assignment Games
Advisor: William F. Lucas
- Gregory **Green** 1992
Confidence Bounds on Functions of Parameters
Advisor: Janet Myhre
- Hamza Abid-ali **Hamza** 1997
Multi-Person Cooperative Games: The Nucleoli Approach Assignment Games
Advisor: William F. Lucas
- Carole **Hayakawa** 2001
Perturbation Monte Carlo Methods for the Solution of Inverse Problems
Advisor: Jerome Spanier
- Susan Kay **Herring** 1992
Statistical Tests for Stochastic Dominance
Advisor: Henry A. Krieger
- Huy **Hoang** 2002
Experimental and Numerical Investigations of Steady Turbulent Jets from Round Ribbed Tubes
(JDP with CSULB) Advisor: Hamid Rahai

- Christopher **Hovick** 2002
*Statistical and Structural Dynamic Analysis of the Earthman Perimeter Measure of
Tooth and Implant and Damping Capacity*
(JDP with CSULB) Advisors: Ortwin Ohtmer and John Angus
- Wenzhang **Huang** 1990
Studies in Differential Equations and Applications
Advisor: Kenneth L. Cooke
- Alice A. **Huffman** 1975
Lifting Isomorphisms Between l -algebras of ϕ -algebras
Advisor: Melvin Henriksen
- Thomas E. **Iverson** 1975
Extensions of the Theory of the Fractional Calculus with an Application
Advisor: Jerome Spanier
- Richard L. **Jow** 1983
Some Contributions to the Theory of Random Sets
Advisor: Richard Vitale
- Khalil Antoun **Kairouz** 2002
*Numerical and Experimental Investigations of a Turbulent Junction Flow with Upstream
Ribbed Surface*
(JDP with CSULB) Advisor: Hamid R. Rahai
- Alice M. **King** 1975
- Rong **Kong** 1999
Transport Problems and Monte Carlo Methods
Advisor: Jerome Spanier
- Yongzeng **Lai** 1999
Monte Carlo and Quasi-Monte Carlo Methods and their Applications
Advisor: Jerome Spanier
- John Patrick **Lambert** 1982
*Some Developments in Optimal and Quasi-Monte Carlo Quadrature and a New Outlook
on a Classical Chebyshev Problem*
Advisor: Jerome Spanier
- Suzanne L. **Larson** 1984
Convexity Conditions on a Class of Lattice Ordered Rings
Advisor: Melvin Henriksen
- Eugene **Lavretsky** 1999
Neural Networks for Function Approximation and Control System Design

Advisor: Robert Williamson

- Hieu Le** 2004
A Method to Detect Single and Multiple Delamination Problems using a Combined Neural Network Technique and Genetic Algorithm Optimization
(JDP with CSULB) Advisor: Ellis Cumberbatch
- Steven Lewis** 2007
Bayesian Parameter and Order Estimation in Profile Hidden Markov Models
Advisor: Alpan Raval
- Liming Li** 1995
Quasi-Monte Carlo Methods for Transport Equations
Advisor: Jerome Spanier
- Alfonso Limon** 2009
A Multilevel Framework for PDEs whose Solution Exhibits Fast Transitions
(JDP with SDSU) Advisor: Ellis Cumberbatch
- Aggie Gloria Ho Liu** 1978
Trees, Tree-Like Structures, and Extreme Points in Banach Spaces
Advisor: Robert James
- Patrick Longhini** 2005
Nonlinear Dynamics Design and Operation of Advanced Magnetic Sensors
(JDP with SDSU) Advisor: Antonio Palacios
- Gabriel Lopez-Garza** 2003
Resonance and Strong Resonance for Semilinear Elliptic Equations in R^N
Advisor: Adolfo Rumbos
- Haisheng Luo** 1995
Curve Estimation and Graduation
Advisor: John Angus
- Barry Luong** 2003
Evaluation Modeling in Performance and Resource Allocation for Residential Broadband Gateways
(JDP with CSULB) Advisor: John. Angus
- Jose Alberto Luzardo-Flores** 1997
Neural Networks for Approximation and Control of Continuous Time Nonlinear Systems
(JDP with CSULB) Advisor: A. G. Chassiakos
- Jose Macias** 1998
An Approximation Method for Solving Non-Homogeneous Wave Equations and Related Inverse Problems
Advisor: Ellis Cumberbatch

- Earl H. **Maize** 1981
Contributions to the Theory of Error Reduction in Quasi-Monte Carlo Methods
 Advisor: Jerome Spanier
- Philip W. **McCartney** 1978
On Some Banach Space Properties Related to the Radon-Nikodým Property
 Advisor: Robert James
- Jeffrey Louis **Molony** 1997
Studies of the Geometric Theory: Nonlinear Dynamical Systems
 Advisor: Courtney Coleman
- Imad **Muhi El-Ddin** 2009
Watermarking Schemes Robust against Affine Attacks: Applied Mathematics, An Application of Digital Image Processing in Information Technology
 Advisor: Hedley Morris
- Dan Manh **Nguyen** 2002
An Unified Automated Approach to Surface Approximation via Finite Element and Non Uniform Rational B-spline Methods
 (JDP with CSULB) Advisors: Ortwin Ohtmer and Ellis Cumberbatch
- Dong **Nguyen** 2000
Reliability Modeling and Evaluation in Computer Networks and Distributed Systems
 (JDP with CSULB) Advisors: John Angus and Dar-Biau Liu
- James **Nguyen** 2009
A Hardware Implementation of the Level Set Method for Robotic Path Finding with Multiple Obstacle Avoidance
 (JDP with CSULB) Advisor: Ali Nadim
- Tien Manh **Nguyen** 1995
Mathematical Modeling and Digital Signal Processing Techniques for Modern Digital Communication Systems
 (JDP with CSULB) Advisor: Hen-Geul Yeh
- Giray **Ökten** 1997
Contributions to the Theory of Monte Carlo and Quasi-Monte Carlo Methods
 Advisor: Jerome Spanier
- Kim Joseph **Olszewski** 1998
Concatenated Reed-Solomon and Reed-Muller Codecs with Blind Adaptation for CDMA Antenna Array Systems
 (JDP with CSULB) Advisor: R. Kumar
- Fred **Ovadia** 1978
Contributions to the Theory of Fractional Difference Operators
 Advisor: Jerome Spanier

- Christopher **Paolini** 2007
A Service-Oriented Architecture for Thermochemical Computation
(JDP with SDSU) Advisor: Subrata Bhattacharjee
- Jeho **Park** 2009
Applications of Cluster Systems
(JDP with CSULB) Advisor: John Angus
- Claudia L. **Pinter** 1987
The Average Error from the Approximation of Functions and Integrals
Advisor: Robert Williamson
- Carlos Orrala **Poveda** 2004
Numerical and Experimental Investigations of Two Side-by-Side Turbulent Jets in a Cross Flow
(JDP with CSULB) Advisor: Hamid R. Rahai
- Jerry Emmett **Purcell** 1995
Allpass Filters
(JDP with CSULB) Advisor: Ellis Cumberbatch
- Norman **Richert** 1981
Diophantine Approximation of Complex Numbers
Advisor: Jerome Spanier
- Mary **Royston** 1995
Three-Sided Assignment Games
Advisor: William F. Lucas
- Thomas R. **Savage** 1977
On Some Problems in the Theory of Von Neumann Regular Rings
Advisor: Melvin Henriksen
- Adeline **Schmitz** 2007
Constructive Neural Networks for Function Approximation and their Application to CFD Shape Optimization
(JDP with CSULB) Advisor: Hamid Hefazi
- Henry J. **Schultz** 1974
Banach and Frechet Algebras of Power Series
- Hiroki **Sunahata** 2006
Interaction of the Quantum Vacuum with an Accelerated Object and its Contribution to Inertia Reaction Force
(JDP with CSULB) Advisor: Alpan Raval
- Jennifer M. **Switkes** 2000

- The Geographic Mosaic Theory in Relation to Coevolutionary Interactions between Two Species*
 Advisor: Michael Moody
- Ying Teng** 2005
Modeling and Simulation of Aeroservoelastic Control with Multiple Control Surfaces Using μ -Method
 (JDP with CSULB) Advisor: H. P. Chen
- Phuong Yen Thi Tran** 1996
Asymptotic Reliability of the Hypercube and the D-Octahedral Networks
 Advisor: William F. Lucas
- John C. Tripp** 1975
Multiplications on Banach Spaces
 Advisor: Sandy Grabiner
- Gregg Turner** 1991
Spectral Conditions for Oscillations and Stabilization of Systems of Differential Equations with Piecewise Constant Arguments
 Advisor: Kenneth Cooke
- Jorge Xicotencatl Velasco-Hernandez** 1991
Models of Chagas' Disease: Stability, Thresholds and Asymptotic Behavior
 Advisor: Stavros Busenberg
- Diana W. Verzi** 2001
A Mathematical Description of Diagrammatic Models for Structural Changes in Dendritic Spines
 Advisors: Ellis Cumberbatch, Steve Baer (ASU)
- Minaya Villasana de Villagas** 2001
A Delay Differential Equation Model for Tumor Growth
 Advisor: Ami Radunskaya
- Rudolf Volz** 1982
Global Asymptotic Stability of a Periodic Solution to an Epidemic Model
 Advisor: Kenneth Cooke
- Jean H.M. Wang** 1981
Error Reduction Techniques for Monte Carlo Neutron Transport Calculations
 Advisor: Jerome Spanier
- Chao-Jen Wong** 2005
An Embedding Method for Simulation of Immobilized Enzyme Kinetics and Transport in Sessile Hydrogen Drops
 Advisor: Ali Nadim

- Binghui **Wu** 1992
Integrated Semigroups of Bounded Linear Operations and their Applications to Inverse Problems
Advisor: Stavros Busenberg
- Kaiqi **Xiong** 1997
Analysis of a Class of Nonlinear Dynamical Systems and Applications to Neural Networks
Advisors: Jerome Spanier and Ellis Cumberbatch
- Dong **Xu** 2008
Femvib, An Ab Initio Multi-Dimensional Solver for Probing Vibrational Dynamics in Polyatomic Molecules and Free Radicals
(JDP with SDSU) Advisor: Andrew Cooksy
- Thomas M. **Zachariah** 1984
Stochastic and Deterministic Sets
Advisor: Richard A. Vitale
- Frederick P. **Zemke** 1975
- Bing **Zhu** 2008
Computational Modeling and Bifurcation Analysis of Bubbling Fluidized Processes
Advisor: Antonio Palacios