

# PHD GRADUATES (SINCE 2000)

- **Darren Narayan**
  - May 2000
  - *The reversing number of a digraph*
  - advisor, Garth Isaak
  - now at Rochester Institute of Technology, Rochester, New York
- **Lyn Phy**
  - May 2000
  - *Applications of weak\*-basic sequences and biorthogonal systems to questions in Banach space theory*
  - advisor, Andrew Snyder
  - now at Kutztown University, Kutztown, Pennsylvania
- **Daniel Rose**
  - May 2000
  - *Asymptotic behavior of combinatorial optimization and proximity graphs on random point sets*
  - advisor, Joe Yukich
  - now at Mercer County Community College, West Windsor Township, New Jersey
- **Michael Fisher**
  - May 2001
  - *Topics in  $v1$ -periodic homotopy theory*
  - advisor, Donald Davis
  - now at West Chester University, West Chester, Pennsylvania
- **Lisa Marano**
  - May 2001
  - *On the global and local moduli of continuity of Brownian motion with applications to mathematical finance*
  - advisor, Vladimir Dobric
  - now at West Chester University, West Chester, Pennsylvania
- **Tom Shimkus**
  - May 2002
  - *Immersions of 2-torsion lens spaces*
  - advisor, Don Davis
  - now at University of Scranton, Scranton, Pennsylvania
- **Mike Fraboni**
  - May 2002
  - *Some  $q$ -convexity properties of coverings of convex manifolds*
  - advisor, Terry Napier
  - now at Moravian College, Bethlehem, Pennsylvania

- **Leyla Batakci**
  - June 2002
  - *Cohomology of the Steenrod algebra mod nilpotents*
  - advisor, Don Davis
  - now at Elizabethtown College, Elizabethtown, Pennsylvania
- **John Frommeyer**
  - January 2003
  - *Arithmetic on free abelian groups*
  - advisor, Clifford Queen
  - now a Programmer/Analyst at the University of Pennsylvania, Philadelphia, Pennsylvania
- **Miranda Teboh-Ewungkem**
  - May 2003
  - *Mathematical analysis of oxygen and substrate transport within a multicapillary system in skeletal muscle*
  - advisor, Eric Salatene
- **Tracy Bowers**
  - May 2003
  - *Characterization of minimal submanifolds by total Gaussian curvature*
  - advisor, David Johnson
- **Katarzyna Potocka**
  - May 2004
  - *Number of summands in v1-periodic homotopy groups of  $SU(n)$*
  - advisor, Don Davis
  - now at Ramapo College, NJ
- **Beth Shimkus**
  - May 2004
  - *Limit theory for functionals on random bipartite sets*
  - advisor, Joe Yukich
- **Trisha Moller**
  - May 2004
  - *t-split interval orders*
  - advisor, Garth Isaak
  - now at Moravian College
- **Francisco Ojeda**
  - January 2006
  - *Orthonormal expansions for Gaussian processes*
  - advisor, Vladimir Dobric
- **Brian Heinold**

- May 2006
  - *Sum List Coloring and Choosability*
  - advisor, Garth Isaak
  - now at Mount St. Mary's College, Emmitsburg, Md.
- **Nate Shank**
  - May 2006
  - *Limit theorems for random Euclidean graphs*
  - advisor, Joe Yukich
  - now at Moravian College, Bethlehem, Pennsylvania
- **Murugiah Muraleetharan**
  - May 2006
  - *Evolution of curves by curvature flow*
  - advisor, David Johnson
- **Nasrine Bendjilali**
  - May 2007
  - *New approaches to multiple comparisons*
  - advisor, Wei-Min Huang
  - now at Rowan University
- **Clement Akongnwi Mformbele**
  - May 2007
  - *Time Dependent and Steady State Interaction Among Capillaries in Skeletal Muscle*
  - advisor, Eric Salathe
- **Xiaoxue Li**
  - May 2007
  - *Some properties of the  $v_1$ -periodic spectrum associated to exceptional Lie groups*
  - advisor, Don Davis
  - now at Emory and Henry College
- **Jennifer Gorman**
  - July 2007
  - *Nested Traveling Salesperson Problems*
  - advisor, Garth Isaak
- **Ellen Panofsky**
  - May 2008
  - *Graph Labeling Problems with Distance Conditions*
  - advisor, Garth Isaak
  - now at Temple University
- **Patrick Gorman**
  - August 2008

- *Stability of a terrestrial Planet in a planetary System with a Hot Jupiter*
  - advisor, George McCluskey
  - now at University of Nevada, Las Vegas
- **Joel Mohler**
  - May 2009
  - *Residues of Weyl Group Multiple Dirichlet Series*
  - advisors, Gautam Chinta and Bruce Dodson
  - Software developer
- **Huiyu Qian**
  - May 2009
  - *On Data-driven Chi square statistics*
  - advisors, Bennett Eisenberg and Wei-Min Huang
  - now at San Diego State University
- **Nicholas Zoller**
  - August 2009
  - *Galois Groups of CM Fields of Degrees 12, 16, 18, 20 and 24*
  - advisor, Bruce Dodson
  - now at Southern Nazarene University
- **Charles Buehrle**
  - May 2010
  - *The Hecke Algebra of the Symmetric Group and the Quantum Immanant Space*
  - advisor, Mark Skandera
  - now at Notre Dame of Maryland University
- **Christopher Godbout**
  - May 2010
  - *On the Behavior of Chern-Simons Classes under Ricci Flow*
  - advisor, David Johnson
- **Jonelle Hook**
  - May 2010
  - *The Classification of critical graphs and Star-critical Ramsey Numbers*
  - advisor, Garth Isaak
  - now at Mount St. Mary's College, Emmitsburg, Maryland
- **Justin Lambright**
  - May 2011
  - *A generalization of Kazhdan and Lusztig's R-polynomials*
  - advisor, Mark Skandera
  - now at Anderson University
- **Melissa Stoner**
  - May 2011
  - *Existence and stability of Standing and Traveling Wave Solutions Arising from*

*Synaptically Coupled Neuronal Networks*

- advisor, Linghai Zhang
- now at Salisbury State University

- **Karen McCready**

- May 2012
- *Exponent bounds for  $SU(n)$*
- advisor, Don Davis
- now at King's College, Wilkes-Barre, Pennsylvania

- **Meng Zhu**

- May 2012
- *On Stability and Rigidity of Gradient Ricci Solitons*
- advisor, Huai-Dong Cao
- now at East China Normal University

- **Marina Skyers**

- May 2012
- *A Tale of Two Sequences: A Story of Convergence, Weak and Almost Sure*
- advisor, Lee Stanley
- now at Penn State Brandywine

- **Qiang Chen**

- May 2013
- *Some Uniqueness and Rigidity Results on Gradient Ricci Solitons*
- advisor, Huai-Dong Cao

- **Brittany Ohlinger (Shelton)**

- May 2013
- *Combinatorial Interpretations of Induced Sign*
- advisor, Mark Skandera
- now at Albright College

- **Breeanne Swart (Baker)**

- May 2013
- *The  $k$ -Fixed-Endpoint Path Partition Problem*
- advisor, Garth Isaak
- now at The Citadel

- **Patricia Garmirian**

- Sep 2013
- *The Central Limit Theorem and the Estimation of the Concentration of Measure for Fractional Brownian Motion*
- advisor, Vladimir Dobric

- **Kathleen Ryan**

- Sep 2013
- *Degree Sequences of Edge-Colored Graphs in Specified Families and Related*

*Problems*

- advisor, Garth Isaak
- now at DeSales University, Center Valley, Pennsylvania

- **Christopher Haines**

- Jan 2014
- *The Relative Advantage of Knowing an Initiation Time or a Mean Time When Estimating a Parameter from an Exponential Distribution Using Type-II Left Censored Data*
- advisor, Bennett Eisenberg
- now teaching at Binghamton University

- **Alexander Halperin**

- May 2014
- *Subdivisions with Distance Constraints in Large Graphs*
- advisor, Vincent Coll and Colton Magnant
- now at Salisbury State University

- **Yingying Zhang**

- May 2014
- *Geometric Quantization of Classical Metrics on the Moduli Space of Canonical Metrics*
- advisor, Huai-Dong Cao and Xiaofeng Sun
- now at Tsinghua University

- **Rivka Win**

- Jan 2015
- *Statistical Comparisons of Time Series*
- advisor, Wei-Min Huang
- now at Pennsylvania College of Technology, Williamsport, Pennsylvania

- **James T. Long**

- May 2015
- *Computational Topics in Infinite-Time Turing Computation*
- advisor, Lee Stanley
- now working as a computer programmer

- **Matt Prudente**

- May 2015
- *Two-Player Variation of Graph Pebbling Computational Topics in Infinite-Time Turing Computation*
- advisor, Garth Isaak
- now at Alvernia University, Reading, Pennsylvania

- **Samuel Clearman**

- May 2016
- *Combinatorial Aspects of Hecke Algebra Characters*
- advisor, Mark Skandera

- now working as a software engineer
- **Xin Cui**
  - May 2016
  - *On Curvature, Volume Growth and Uniqueness of Steady Ricci Solitons*
  - advisor, Huai-Dong Cao
- **Sarah Dumnich**
  - May 2016
  - *A Measure Theoretic Approach to the Construction of Scaling Functions for Wavelets*
  - advisor, Vladimir Dobric and Robert Neel
  - now at St. Vincent College, Latrobe, Pennsylvania
- **Cuneyt Ferahlar**
  - May 2016
  - *A Weitzenbock Formula for Compact Complex Manifolds and Application to the Hopf Conjecture in real dimension 6*
  - advisor, David Johnson
- **Mackenzie Wildman**
  - May 2016
  - *The Dobric-Ojeda Process with Applications to Option Pricing and the Stochastic Heat Equation*
  - advisor, Daniel Conus and Vladimir Dobric
- **Alex Borselli**
  - August 2016
  - *Galois Groups of CM Fields in Degrees 24, 28, and 30*
  - advisor, Bruce Dodson
  - now at St. Vincent College, Latrobe, Pennsylvania
- **Aydin Gerek**
  - Jan 2017
  - *Hendry's Conjecture on Chordal Graph Subclasses*
  - advisor, Garth Isaak
  - now research engineer at Huawei
- **William Franczak**
  - May 2018
  - *K-Triviality and Computable Measures*
  - advisor, Lee Stanley
  - now at The College of New Jersey
- **Pamela Gordon**
  - May 2018
  - *Structural considerations for interval orders with length constraints*
  - advisor, Garth Isaak

- **Caitlin Owens**
  - May 2018
  - *Forbidden Subgraphs for Hamiltonian Problems on 2-Trees*
  - advisor, Garth Isaak
  - now data scientist, USDA
- **Steve Scheirer**
  - May 2018
  - *Topological complexity of graph configuration spaces*
  - advisor, Don Davis
  - now at Susquehanna University
- **Robert Short**
  - May 2018
  - *Relative topological complexity of a pair*
  - advisor, Don Davis
  - now at NASA
- **Aria Dougherty**
  - May 2019
  - *Regular Functionals on Seaweed Lie Algebras*
  - advisor, Vincent Coll
  - now at Ranger College
- **Alan Dyson**
  - May 2019
  - *Existence, Uniqueness, and Stability of Traveling Waves in Neural Field Models*
  - advisor, Linghai Zhang
- **Alex Cameron**
  - August 2019
  - *Combinatorial Index Formulas for Lie Algebras of Seaweed Type and the Unbroken Spectrum of Frobenius Seaweeds*
  - advisor, Vincent Coll
- **Nicholas Mayers**
  - May 2020
  - advisor, Vincent Coll
  - now at North Carolina State University
- **Han Chen**
  - May 2021
  - *A Clustering-Based Analysis Procedure for Dynamic Models with Blocked Data and Its Applications*
  - advisor, Wei-Min Huang
  - now a machine learning scientist at Wayfair

- **Thomas Dickson**
  - May 2021
  - *Intermittency and the Stochastic Logistic Differential Equation*
  - advisor, Daniel Conus
- **Jiangtao Yu**
  - May 2021
  - *Type II self-similar solutions to the Ricci flow and the mean curvature flow*
  - advisor, Huai-Dong Cao
  - now at University of Science and Technology of China
- **Alan Hylton**
  - January 2022
  - *On the Cohomology of Seaweed Algebras*
  - advisor, Vincent Coll
  - now a Computer Engineer at NASA
- **Tianbo Liu**
  - May 2022
  - *Curvature Estimates for Complete Gradient Expanding Ricci Solitons*
  - advisor, Huai-Dong Cao
- **Nick Russoniello**
  - May 2022
  - *On Contact Lie Algebras: Seaweeds and Lie Poset Algebras*
  - advisor, Vincent Coll
- **Robert Mccloskey**
  - August 2022
  - *On Change-of-Basis of Quasisymmetric and Noncommutative Symmetric Functions*
  - advisor, Angela Hicks
- **Ruxiao Qian**
  - August 2022
  - *Intermittency for the Stochastic Heat and Wave Equations With Generalized Fractional Noise*
  - advisor, Daniel Conus
- **James Siene**
  - December 2022
  - *Bach-Like Tensors on Complete Gradient Shrinking Ricci Solitons and Quasi-Einstein Manifolds with Harmonic Weyl Curvature*
  - advisor, Huai-Dong Cao
- **Huaiqian You**
  - December 2022
  - *Nonlocal Models for Complex Physical Responses: Analysis and Applications*

- advisor, Yue Yu
- **Junming Xie**
  - May 2023
  - *Shrinking and Expanding Self-Similar Solutions to the Ricci Flow and the Mean Curvature Flow*
  - advisor, Huai-Dong Cao
- **Peter Conley**
  - August 2023
  - *Sum List Vertex Arboricity and Decycling Number of Cylinder Graphs*
  - advisor, Garth Isaak
- **Mashael Alshammari**
  - May 2024
  - *Properties of the Global Solutions of a Two-Dimensional Incompressible Dissipative Quasi-Geostrophic Equation*
  - advisor, Linghai Zhang
- **Hang Zhao**
  - May 2024
  - *Some Topics in Partial Differential Equations: Exact Limit and Diffusive Limit*
  - advisor, Don Davis
- **Logan Hambric**
  - August 2024
  - *Phase Tropical Homology and Intersection Lattices*
  - advisor, Andrew Harder
- **Samantha Miller-Brown**
  - August 2024
  - *Quasisymmetric Characteristic Compatible  $S(n)$ -Modules*
  - advisor, Angela Hicks
- **Jerry Guo**
  - December 2024
  - *High Dimensional Behavior of Time Constant in the First-Passage Percolation Model*
  - advisor, Si Tang
- **Ningxi Wei**
  - December 2024
  - *Optimization via Clustering to Improve Ensemble Performance of Infectious Disease Models*
  - advisor, Wei-Min Huang
- **Xinshuo Wu**
  - December 2024

- *Topics in Mixture Regression Models: Parametric and Non-Parametric Approaches with High-Dimensional Covariates*
  - advisor, Wei-Min Huang
- **Daoyuan Han**
  - December 2024
  - *Calabi Hyperkähler Manifold and Singularity Models of  $U(3)$ -Invariant Ricci Flow*
  - advisor, Huai-Dong Cao
- **Jacob Hauser**
  - May 2025
  - *On the Word-Representability of Chordal Near-Triangulations*
  - advisor, Garth Isaak
- **Caleb Scutt**
  - May 2025
  - *Traces and Their Combinatorial Interpretations: A Comparative Study of the Symmetric Group Algebra, Hecke Algebra, and Immanants of Totally Nonnegative Matrices*
  - advisor, Mark Skandera
- **Yiming Fan**
  - August 2025
  - *Uncertainty Quantification for Forward and Inverse Problem in Nonlocal Heterogeneous Material Modeling*
  - advisor, Yue Yu
- **Peipei Wang**
  - August 2025
  - *Estimating the Hurst Index Under the Dobrić–Ojeda Framework for Long-Range Dependence in Stock Prices*
  - advisor, Daniel Conus
- **Tian Qin**
  - Fall 2025
  - *iterative Expectation (iE) - A Generalized Bias Reduction Technique*
  - advisor, Wei-Min Huang