APPLIED MATHEMATICS (GRADUATE FIELD)

Program Website (http://www.cam.cornell.edu/)

Field Description

The graduate program in applied mathematics is based on a solid foundation in pure mathematics, which includes the fundamentals of algebra and analysis. It involves a grounding in the methods of applied mathematics and studies of scientific areas in which significant applications of mathematics are made. The field has a broadly based interdepartmental faculty that can direct student programs in a large number of areas of the mathematical sciences.

Many specialized or interdisciplinary programs can be designed for individual students, including, for example, a variety of possibilities in biomathematics.

The dissertation is normally a mathematical contribution toward the solution of a problem arising outside mathematics.

Students who are interested in this field may also want to investigate the related fields listed under Mathematical Sciences in "Opportunities for Study," pages 7-8.

- Applied Mathematics (PhD) (https://catalog.cornell.edu/programs/applied-mathematics-phd/)

Data and Statistics

Doctoral Program Statistics (https://gradschool.cornell.edu/about/program-metrics-assessments-and-outcomes/doctoral-program-statistics/?SelectGradField=22)

Field Manual

Manual (https://www.cam.cornell.edu/cam/academics/phd-program/)

Subject and Degrees
Applied Mathematics

- Applied Mathematics (PhD) (https://catalog.cornell.edu/programs/applied-mathematics-phd/)

Concentrations by Subject
Applied Mathematics

- applied mathematics

Faculty

C. Lindsay Anderson (https://www.cam.cornell.edu/cam/academics/phd-program/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** application of systems modeling and optimization to energy and the environment

Siddhartha Banerjee (http://www.engineering.cornell.edu/faculty-directory/sid-banerjee/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** stochastic modeling and the design of scalable algorithms and incentive mechanisms for large systems; marketing and social computing, control of information flows, learning and recommendation

Sumanta Basu (http://www.stat.cornell.edu/people/faculty/sumanta-basu/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

David S. Bindel (http://www.cs.cornell.edu/~bindel/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** numerical linear algebra; microelectromechanical systems; network tomography; finite element analysis; numerical software design

Lawrence Edward Blume (http://infosci.cornell.edu/content/blume/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** markov processes; networks; market selection

Nikolaos Bouklas (http://www.mae.cornell.edu/people/profile.cfm?netid=nb589)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** theoretical and computational solid mechanics, soft materials, active materials and biomaterials, fracture and instabilities, multiscale modeling in coupled, multi-physical systems

Florentina Bunea (http://stat.cornell.edu/people/faculty/florentina-bunea/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** model selection and averaging (aggregation) in a variety of high dimensional parametric, semi-parametric and nonparametric models, machine learning and empirical processes theory

Eshan Chattopadhyay (http://www.cs.cornell.edu/~eshan/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** computational complexity theory, pseudorandomness, cryptography, combinatorics, probability

Hsiao-Dong Chiang (http://www.ece.cornell.edu/faculty-directory/hsiao-dong-chiang/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** nonlinear circuits and systems; power systems; artificial neural networks

Robert Connelly (http://math.cornell.edu/robert-connelly/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** geometry of discrete structures; configuration spaces; topology

Jim Dai (http://www.orie.cornell.edu/faculty-directory/jim-dai/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

Anil Damle (http://www.cs.cornell.edu/~damle/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** numerical linear algebra; computational quantum chemistry; spectral clustering and fast algorithms

Sarah A Dean (http://sdean.website/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** machine learning, data-driven control and decision-making, physical and social dynamics

David Forbes Delchamps (http://www.ece.cornell.edu/faculty-directory/david-forbes-delchamps/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** dynamical systems; control theory; stochastic systems; cognitive science

Olivier Desjardins (http://www.mae.cornell.edu/mae/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:**

Peter J. Diamessis (http://www.cee.cornell.edu/faculty-directory/pete-j-diamessis/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** turbulence; environmental and computational fluid mechanics

Moon Duchin (http://publicpolicy.cornell.edu/people/moon-duchin/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** modeling and mechanism design for electoral systems; networks, geospatial, demographic data; Markov chains and discrete geometry

Raaz Dwivedi (http://www.orie.cornell.edu/faculty-directory/raaz-dwivedi/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Causal inference, reinforcement learning, statistical machine learning with applications to healthcare

Christopher J. Earls (http://www.cee.cornell.edu/faculty-directory/christopher-j-earls/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** computational solid mechanics; stochastic inverse problems

David Alan Easley (http://infosci.cornell.edu/content/easley/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** economics of information; learning from endogenous data; market microstructure; evolution in games and markets

Omar El Housni (http://tech.cornell.edu/people/omar-el-housni/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Dynamic optimization under uncertainty, Robust and stochastic optimization, Approximation algorithms

Stephen Paul Ellner (http://ecologyandevolution.cornell.edu/stephen-paul-ellner/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** theoretical population biology; evolutionary biology

Veit Elser (http://physics.cornell.edu/veit-elser/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** crystallography; quasicrystals; quasiperiodic minimal surfaces

Mahdi Esmaily Moghadam (http://www.mae.cornell.edu/people/profile.cfm?netid=me399)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** cardiovascular mechanics and biological flows, development of computational techniques for such problems

Gregory Simon Ezra (http://chemistry.cornell.edu/gregory-sion-ezra/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** theoretical chemistry; chemical physics

Silvia Ferrari (http://www.engineering.cornell.edu/faculty-directory/silvia-ferrari/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** optimal control theory; intelligent systems; multivariable control; feedback control of dynamic systems; sensor networks

Peter Frazier (http://www.orie.cornell.edu/faculty-directory/peter-frazier/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** probability optimization; information theory; mathematical biology

Kyra Gan (http://tech.cornell.edu/people/kyra-gan/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** precision health, approximation algorithms, applied probability and statistics

Paul H. Ginsparg (http://infosci.cornell.edu/content/ginsparg/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** quantum field theory; digital knowledge networks

Andrea Giometto (http://www.cee.cornell.edu/faculty-directory/andrea-giometto/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** evolutionary biology; stochastic and dynamical systems in biology; theoretical population biology

David Alan Goldberg (http://www.orie.cornell.edu/faculty-directory/david-alan-goldberg/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** applied probability and scholastic processes, inventory models, queueing theory, options pricing and optimal stopping

Ziv Goldfeld (http://www.ece.cornell.edu/faculty-directory/ziv-goldfeld/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** statistical machine learning, information theory, optimal transport, high-dimensional and nonparametric statistics

Carla P Gomes (http://infosci.cornell.edu/content/gomes/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** large-scale constraint reasoning and optimization; mathematical programming; machine learning

Giulia Guidi (http://gguidi.com/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** combinatorial scientific computing, sparse linear algebra, parallel and distributed scientific computation, and parallel systems

Joseph Yehuda Halpern (http://infosci.cornell.edu/content/halpern/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

- **Research Interests:** reasoning about knowledge and uncertainty; qualitative reasoning; (fault-tolerant) distributed computing logic; game theory

Bharath Hariharan (http://home.bharathh.info/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** statistics and machine learning, artificial intelligence

Timothy James Healey (http://www.mae.cornell.edu/people/profile.cfm?netid=tjh10)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** nonlinear elasticity; nonlinear analysis; equivariant bifurcation theory

Shane G. Henderson (http://www.orie.cornell.edu/faculty-directory/shane-g-henderson/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** discrete-event simulation; simulation and optimization; applications in radiation oncology

John Hamal Hubbard (http://math.cornell.edu/john-h-hubbard/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** ordinary differential equations; iterations; fractals

Chung-Yuen Hui (http://www.mae.cornell.edu/people/profile.cfm?netid=ch45)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** fracture mechanics; high-temperature crack propagation; geomechanics; asymptotic methods

Robert Alan Jarrow (http://www.johnson.cornell.edu/faculty-and-research/faculty/raj15/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** mathematical finance

Nathan Kallus (http://www.orie.cornell.edu/faculty-directory/nathan-kallus/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** data-driven optimization under uncertainty; casual inference; machine learning; personalization; optimization in statistics; online decision making and operations in health care

Edwin Chihchuan Kan (http://www.ece.cornell.edu/faculty-directory/edwin-chihchuan-kan/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

- **Research Interests:** physical modeling of semiconductor devices and processes; numerical solvers for hybrid systems (EM, mechanical, and thermal)

Jaehee Kim (http://cals.cornell.edu/jaehee-kim/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** mathematical biology, probability and stochastic processes, statistics and data science, dynamical systems and ordinary differential equations, scientific computing and numerical analysis

Jon M Kleinberg (http://infosci.cornell.edu/content/kleinberg/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** algorithms; combinatorial optimization; computational geometry; computational biology

Robert D. Kleinberg (http://infosci.cornell.edu/content/kleinberg-0/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** design and analysis of algorithms, especially randomized and online algorithms for networked systems and electronic markets

Donald L Koch (http://www.cheme.cornell.edu/faculty-directory/donald-l-koch/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** fluid dynamics; stochastic processes in suspensions

Dan Kowal (http://stat.cornell.edu/people/faculty/dan-kowal/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** time series analysis; functional data; spatial data; Bayesian statistics

Vikram Krishnamurthy (http://www.ece.cornell.edu/faculty-directory/vikram-krishnamurthy/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** stochastic optimization; partially observed Markov decision processes; stochastic filtering theory

Simon Asher Levin (http://ecologyandevolution.cornell.edu/simon-levin/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** ecology, epidemiology, and evolutionary theory; mathematical biology

Adrian Lewis (http://www.orie.cornell.edu/faculty-directory/adrian-s-lewis/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

- **Research Interests:** variational analysis and nonsmooth optimization with particular interest in eigenvalue optimization

Mark E. Lewis (http://www.orie.cornell.edu/faculty-directory/mark-e-lewis/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

Andreas Malikopoulos (http://www.cee.cornell.edu/faculty-directory/andreas-malikopoulos/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Data-driven control and decision-making, decentralized optimal control, stochastic resource allocation, and learning-based control in cyber-physical systems.

Stephen Robert Marschner (http://www.cs.cornell.edu/%7Esrm/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** computer graphics, 3D computer vision, realistic rendering and simulation, light scattering and light transport, inverse rendering and inverse light transport, appearance of hair, skin, and cloth, computational design of textiles

David Matteson (http://www.stat.cornell.edu/~matteson/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:**

Jason G. Mezey (http://mezeylab.cb.bscb.cornell.edu/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** quantitative genetics/genomics; statistical genetics; computational biology; pathway modeling; molecular evolution

Andreea Minca (http://www.orie.cornell.edu/faculty-directory/andreea-c-minca/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Andrea is a second year Assistant Professor in ORIE. She works in mathematical finance, in non-traditional directions. Her works deals with aspects of finance related to optimal control, queuing theory, interacting particle systems, etc.

Francesca Molinari (http://economics.cornell.edu/francesca-molinari/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** econometrics both theoretical and applied; theoretical work is in partial identification and in the study of how random set theory can be useful in this context; empirical work is concerned with estimation of risk preferences

Kristina Monakhova (http://kristinamonakhova.com/kristina/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** imaging inverse problems, differentiable physical models for imaging and microscopy, machine learning

Christopher R. Myers (http://physics.cornell.edu/christopher-myers/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** systems biology; complex systems; computational science

Anil Nerode (http://www.mathlab.cornell.edu/m/People/bynetid/an17/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** logic; recursive functions and computability; theoretical computer science; hybrid systems

Samuel Epstein Otto (http://www.mahttp://www.mae.cornell.edu/faculty-directory/sam-ottoe.cornell.edu/faculty-directory/sam-otto/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** scientific machine learning, operator learning, reduced-order modeling, dynamical systems, and computational fluid dynamics

Francesca Parise (http://www.engineering.cornell.edu/faculty-directory/francesca-parise/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Complex Systems, Network Science and Computation, Systems and Networking

Rafael N. Pass (http://www.cs.cornell.edu/%7Erafael/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** cryptography and its interplay with computational complexity; game theory

Pierre Patie (http://www.orie.cornell.edu/faculty-directory/pierre-patie/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

Jamol J. Pender (http://www.orie.cornell.edu/faculty-directory/jamol-j-pender/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** nonstationary queues; nonstationary markov processes; financial engineering

Perrine Pepiot (http://www.engineering.cornell.edu/faculty-directory/perrine-pepiot/)

- Campus: Ithaca
- Concentrations: Applied Mathematics: applied mathematics

- Research Interests: large-scale simulations of reactive gas-solid flows with application to biomass thermochemical conversion to biofuels

James Renegar (http://www.orie.cornell.edu/faculty-directory/james-renegar/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** complexity of algorithms; mathematical programming

Mert Sabuncu (http://sabuncu.engineering.cornell.edu/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** computational methods; stochastic methods; artificial intelligence

Laurent Pascal Saloff-Coste (http://math.cornell.edu/laurent-saloff-coste/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** analysis; potential theory; stochastic processes

Samitha Samaranayake (http://cee.cornell.edu/samitha/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

Gennady Samorodnitsky (http://www.orie.cornell.edu/faculty-directory/gennady-samorodnitsky/)

- Campus: Ithaca
- Concentrations: Applied Mathematics: applied mathematics
- Research Interests: applied probability; stable processes; long-range dependence; communication networks; financial models; risk theory

Dmitry Savransky (http://www.mae.cornell.edu/faculty-directory/dmitry-savransky/)

- Campus: Ithaca
- Concentrations: Applied Mathematics: applied mathematics

Ziv Scully (http://www.orie.cornell.edu/faculty-directory/ziv-scully/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Applied Probability, Queueing theory, Online decision-making, Scheduling

Bart Selman (http://www.cs.cornell.edu/selman/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** artificial intelligence and experimental computer science

James Patarasp Sethna (http://physics.cornell.edu/james-sethna/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics

- **Research Interests:** theoretical condensed-matter physics; materials science; spatially extended dynamical systems

Soroosh Shafieezadeh Abadeh (http://www.orie.cornell.edu/faculty-directory/soroosh-shafiee/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Low-complexity and robust decision-making, Optimization, Machine Learning, and Optimal Transport

David B Shmoys (http://infosci.cornell.edu/content/shmoys/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** analysis of algorithms; combinatorial optimization; approximation algorithms; computational biology

Alexandra Silva (http://alexandrasilva.org/#/mainhtml)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** category theory, logic, semantics, and verification

Keith N. Snavely (http://www.cs.cornell.edu/~snavely/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** large-scale 3D reconstruction from 2D images; analysis of large graphs derived from massive image collections

Sadaf Sobhani (http://www.mae.cornell.edu/faculty-directory/sadaf-sobhani/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** computational fluid dynamics, topology optimization in thermal/fluidic systems

Philippe Sosoe (http://math.cornell.edu/philippe-sosoe/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** probability, analysis, mathematical physics

Karthik Sridharan (http://www.cs.cornell.edu/~sridharan/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** machine learning, statistical learning theory, online learning, optimization, empirical process theory, concentration inequalities, game theory

Noah Stephens-Davidowitz (http://noahsd.com/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Theoretical Computer Science, Security, Cryptography

Michael Eugene Stillman (http://math.cornell.edu/michael-e-stillman/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** algebraic geometry; computational algebra and algebraic geometry; commutative algebra

Steven H Strogatz (http://math.cornell.edu/steven-strogatz/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** nonlinear dynamics; applications to physics, engineering, and biology

Ao Tang (http://www.ece.cornell.edu/faculty-directory/kevin-tang/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** communication networks; control and dynamical systems optimization; game theory and applications; stochastic processes and networks

Eva Tardos (http://infosci.cornell.edu/content/tardos/)

- **Campus:** Ithaca
- **Concentrations**: Applied Mathematics: applied mathematics
- **Research Interests:** design and analysis of algorithms, with emphasis on problems in combinatorial optimization and their applications to various problems

John Thickstun (http://johnthickstun.com/)

- **Campus:** Ithaca
- **Concentrations:** *A*pplied Mathematics: applied mathematics

Erik Henning Thiede (http://as.cornell.edu/people/erik-thiede/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Computational Methods, Stochastic Methods, Mathematical Analysis.

Lang Tong (http://www.ece.cornell.edu/faculty-directory/lang-tong/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** statistical signal processing; communication systems and networking; adaptive receiver design-estimation theory

Huseyin Topaloglu (http://www.orie.cornell.edu/faculty-directory/huseyin-topaloglu/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** stochastic programming; approximate dynamic programming; stochastic approximation algorithms

Alex John Townsend (http://math.cornell.edu/alex-townsend/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Numerical analysis, scientific computer, numerical algebraic geometry

Alexander B. Vladimirsky (http://math.cornell.edu/alexander-vladimirsky/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** applied mathematics; numerical methods; dynamic systems; nonlinear PDEs; control theory

Aaron B. Wagner (http://www.ece.cornell.edu/faculty-directory/aaron-b-wagner/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** information theory; communication and compression; networking; computational linguistics; security

Zheng Jane Wang (http://physics.cornell.edu/jane-wang/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** fluids in physics and biology; biomathematics; statistical physics; scientific computing and modeling

Marten Wegkamp (http://stat.cornell.edu/people/faculty/marten-wegkamp/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Classification, Copula Modeling, Learning Theory, Empirical Process Theory, Matrix Estimation and Completion, Model Selection and Aggregation, Nonparametric estimation

David Paul Williamson (http://infosci.cornell.edu/content/williamson/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** combinatorial optimization; approximation algorithms; information networks

Manxi Wu (http://www.orie.cornell.edu/faculty-directory/manxi-wu/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Game theory, Multi-agent learning, Transportation

Yunan Yang (http://as.cornell.edu/people/yunan-yang/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** Numerical Analysis, Inverse Problems, Nonconvex Optimization, Optimal Transport, and Machine Learning

Fengqi You (http://www.atkinson.cornell.edu/about/people/fellows/view.php?NetID=fy86)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** advanced computational models, optimization algorithms, statistical and machine learning methods, and systems analysis tools

Christina Lee Yu (http://www.orie.cornell.edu/faculty-directory/christina-lee-yu/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** scalable algorithms for processing social data based on principles from statistical inference

Ramin Zabih (http://infosci.cornell.edu/content/zabih/)

- **Campus:** Cornell Tech (NYC)
- **Concentrations:** Applied Mathematics: applied mathematics
- **Research Interests:** signal and image processing; optimization; algorithms

Qing Zhao (http://www.ece.cornell.edu/faculty-directory/qing-zhao/)

- **Campus:** Ithaca
- **Concentrations:** Applied Mathematics: applied mathematics