

Doctoral Student Colloquium



informs

ANNUAL MEETING



2019 Seattle

Agenda





2019 INFORMS DOCTORAL STUDENT COLLOQUIUM

Friday, October 18 | Sheraton Grand Hotel - Cirrus Room

7–8pm Welcome Reception

Saturday, October 19 | Sheraton Grand Hotel - Ravenna Room

7–8am Registration and Breakfast - Metropolitan B, 3rd Floor

8–8:05am Welcome Address

8:05–9:15am Becoming a Great Teacher
S. Martonosi, L. Albert, J. Camm

9:15–10:15am O.R. in a Research Lab
S. Wild, C. Coffrin, M. Poloczek

10:15–10:30am Coffee Break

10:30–11am Academic Career Paths in O.R.
D. Alderson, J. C. Smith, M. Gorman

11–11:45am Industry-Related Career Paths in O.R./JFIG
B. Behdani, P. Frazier, Z. Wang

11:45am–1pm Lunch - Metropolitan B, 3rd Floor

1–1:45pm Building a Funded Research Program
G. -A. Klutke, S. Shen

1:45–2:30pm Working with Industry
J. Shi, M. Gorman, P. Frazier

2:30–2:45pm Coffee Break

2:45–3:30pm Becoming a Prolific Scholar
D. Simchi-Levi, B. Nelson, C. Yano

3:30–4:30pm Job Search
J. Dong, P. Vayanos, B. Denton, B. Behdani

5pm All-Colloquia Reception - Metropolitan B, 3rd Floor

Colloquium Participants



Maryam Abdirad
Wichita State University
mxabdirad@wichita.edu

Maryam Abdirad is currently a PhD student and research assistant in the Industrial, Systems, and Manufacturing Engineering Department at Wichita State University since January 2017. Maryam graduated with a master's degree in systems engineering from the Florida Institute of Technology. Additionally, Maryam has a master's in industrial engineering from Amirkabir University in Iran with research related to the dynamic vehicle routing problem.

Imtiaz Ahmed
Texas A&M University
imtiazavi@tamu.edu

Imtiaz Ahmed's PhD study is focused on industrial and systems engineering at Texas A&M University under the supervision of Dr. Yu Ding. Imtiaz's specialization is in industrial data science, which falls under the INFORMS cluster Quality, Statistics, and Reliability. Imtiaz's PhD thesis explores developing algorithms for unsupervised anomaly detection in the presence of an embedded low-dimensional manifold. Before joining Texas A&M, Imtiaz was working as a faculty member in the Industrial & Production Engineering Department at Bangladesh University of Engineering & Technology, Dhaka, Bangladesh, for more than three years. Imtiaz obtained both a bachelor's and master's degree from the very same department in 2012 and 2014, respectively. For leisure, Imtiaz enjoys reading books and listening to music. He also enjoys traveling to new places and trying multinational cuisines.

Ramin Ahmed
North Carolina State University
rahmed2@ncsu.edu

Ramin Ahmed is a PhD student at North Carolina State University, concentrating specifically on supply chain, production, and logistics systems analysis; modeling; and optimization. He is currently working on supply chain configuration, modeling, and optimization for the additive manufacturing sector. Besides his PhD, he is working toward an MBA in operations and supply chain management, which really helps him to view the problems from different perspectives. He also has a profound interest in statistical analysis and data science for which he is working toward a data science certification.

Temitayo Ajayi

Amin Asadi

Hedieh Ashrafi

Sanam Azadiamin

Bukola Bakare
North Dakota State University
bukola.bakare@ndsu.edu

Bukola Bakare is a PhD candidate in transportation and logistics (supply chain concentration) in the College of Business at North Dakota State University. She is a Robert Wood Johnson Foundation (RWJF) Health Policy Research Scholar. Her research focuses on transportation, health, and corporate social responsibility. Bukola received a BBA in accounting from Georgia State University and a MAcc in accounting from Kennesaw State University. She has taught undergraduate accounting courses in the University System of Georgia and private

institutions as an adjunct professor for five years. She did consulting work in accounting for clients in healthcare management, medical transportation, immigration law, and business. She has participated in the Council of Supply Chain Management Professionals and Transportation Club roundtables and served on the 2017 Culture of Health Panel at the American Public Health Association meetings. Bukola is a recipient of several grants including a competitive dissertation award from the RWJF.

Emily Barbee
University of Alabama

Emily Barbee is a third-year PhD student in operations management at the University of Alabama (UA). In 2017, she earned her BS and MS in operations management at the College of Business concurrently, as a part of the University Scholars program. As a PhD student, she has been awarded the Graduate Council Fellowship by the Graduate School and the Outstanding Graduate Student Instructor Award by her department. Prior to entering the PhD program, Emily worked as an operations management intern with Phifer Incorporated, a local manufacturer of outdoor textiles. Emily's research interests include supply chain and inventory management, nonlinear optimization, stochastic programming, omni-channel supply chains, and optimization in the textile industry. Emily is currently serving as the president for the UA INFORMS Student Chapter and has previously served as the secretary and vice president.

Deniz Besik
PhD Candidate, University of Massachusetts Amherst
dbesik@som.umass.edu

Deniz Besik is currently a doctoral candidate (ABD) in business administration with a concentration in management science in the Department of Operations and Information Management at the Isenberg School of Management, University of Massachusetts (UMass) Amherst. Her research interests include inherent issues in supply chains in the food industry including the impacts of trade policies and the quality issues related to perishable nature of the food products. In the future, her goal is to extend her research portfolio by continuing to study supply chains of societal value. She is highly motivated to work sustainable supply chains, with a focus on the environmental and economic impacts. She has been an active member of the UMass Amherst Student Chapter of INFORMS and served as its president in the academic year 2017–2018 during which the chapter was recognized with the Cum Laude Award at the INFORMS Annual Meeting in Phoenix.

Tanveer Hossain Bhuiyan
University of Tennessee, Knoxville
tbhuiyan@vols.utk.edu

Tanveer Hossain Bhuiyan is a PhD student at the Industrial & Systems Engineering Department of the University of Tennessee, Knoxville. Prior to his doctoral study, he completed an MS in operations research with a minor in statistics from Mississippi State University. His broad research interests includes developing methodology in stochastic programming, integer programming, global optimization, derivative-free optimization, and machine learning for application areas including critical infrastructure protection, disaster mitigation, transportation network design, cybersecurity, and reliability-based design optimization. His PhD dissertation is on advancements on the theory and methodology of stochastic programming with endogenous uncertainty with application areas of disaster mitigation and reliability improvement in transportation network and product design. His dissertation includes integration of the predictive and prescriptive analytics by exploiting machine-learning-based methods in solving computationally expensive optimization problems. His research papers published in the *European Journal of Operational Research* and several IEEE conferences.

Philippe Blaettchen
INSEAD
philippe.blaettchen@insead.edu

Philippe Blaettchen is a PhD candidate in technology and operations management at INSEAD in his fourth year. He analyzes innovative business models in industries disrupted by technological change. In one of his projects, he

studies the impact of traceability technology on food supply chains, modelling the adoption process of traceability systems in order to derive conditions for widespread usage. By differentiating between blockchain-based and more traditional approaches to traceability, the project aims to estimate the impact of blockchain on supply chains. Philippe also studies sharing platforms in heavy equipment manufacturing industries, as well as mobile service delivery teams for contraceptive solutions for rural populations in developing countries.

Pol Boada-Collado

Northwestern University

boada.pol@u.northwestern.edu

Pol Boada-Collado is a rising fourth-year PhD student in the industrial engineering and management sciences department of Northwestern, working with Prof. Karen Smilowitz and Prof. Sunil Chopra. Pol's research is situated at the intersection of operations management and logistics. He is particularly interested in studying dynamic and adaptive logistic systems that pose challenges to business models. His dissertation topic is dynamic procurement with partial information.

Phillip Buelow

Kiefer Burgess

PhD Candidate, University of Waterloo

kjburgess@uwaterloo.ca

Kiefer is a PhD candidate in the Department of Management Sciences at the University of Waterloo. Prior to his PhD studies, he obtained a master's of financial economics from the University of Toronto and a bachelor's of commerce, finance major, from Saint Mary's University in Halifax, Nova Scotia. His current research interests are sports analytics, mechanism design, and high-seas fishing operations.

Geunyeong Byeon

University of Michigan

Geunyeong Byeon is a fourth-year PhD student in the Department of Industrial and Operations Engineering at the University of Michigan under the supervision of Prof. Pascal Van Hentenryck. Her doctoral research focuses on operations research for engineering applications: She develops methodologies for large-scale optimization and applies them in challenging applications in critical infrastructure systems. She developed an accelerated branch-and-price algorithm for solving a power system expansion planning problem and a dedicated Benders method for solving decision-making problems under subsequent reactions from other correlated systems.

She holds a bachelor's and a master's degree from Korea University and Seoul National University in South Korea, respectively. She was a research assistant in the Management Science/Optimization Laboratory at Seoul National University and an intern in the center for nonlinear studies at Los Alamos National Laboratory.

Mustafa Camur

Rensselaer Polytechnic Institute

camurm@rpi.edu

Mustafa Can Camur is a third-year PhD student in the Industrial and Systems Engineering Department at Rensselaer Polytechnic Institute (RPI). He works under the supervision of Dr. Thomas C. Sharkey on a project whose primary goal is to develop models for emergency response in the Arctic.

In addition, he is pursuing a master's degree in applied mathematics at RPI. Prior to joining RPI, he was a master's student at Ohio University in the industrial and manufacturing engineering department and conducted research on a manufacturing scheduling problem. His research interests include network optimization, humanitarian logistics, and decomposition algorithms.



Haoyang Cao

University of California, Berkeley

Haoyang is a fifth-year PhD student in the Department of Industrial Engineering and Operations Research at UC Berkeley, under the supervision of Prof. Xin Guo. She has been conducting research on stochastic controls and stochastic differential games. Recently she started to work on the interface of deep learning and game theory. Prior to her PhD study, she obtained a Bachelor of Science in mathematics from the University of Hong Kong.

Rui Chen

University of Wisconsin-Madison

rchen234@wisc.edu

Rui Chen is a PhD student at University of Wisconsin-Madison. His research focuses on developing numerical algorithms for stochastic programs and integer programs, and exploiting polyhedral structures of certain combinatorial problems to solve optimization problems. He is also interested in all optimization problems and applications of optimization arising in scientific and engineering problems. He works with Jim Luedtke.

Xun Chen

Texas A&M University

xchen@tamu.edu

Xun Chen is a second-year PhD student in the Department of Industrial Engineering at Texas A&M University. She has a background in economics and applied statistics and is proficient in data analysis. She hopes to apply her knowledge of economics in the field of operations research and operations management to carry out high-quality research, focusing on manufacturing, supply chain, and operation management. Her current research topic is shape-constrained nonparametric regression.

Ruimin Chen

Janiele Custodio

George Washington University

janiele@gwu.edu

Janiele Custodio is a systems engineering PhD candidate in the Department of Engineering Management and Systems Engineering at the George Washington University.

The overall scope of her thesis is the derivation of tractable convex reformulations for stochastic mixed-integer nonlinear programs with decision-dependent and exogenous uncertainty. Her thesis studies these reformulations in the context of data-driven optimization models for drone-based healthcare delivery, such as the delivery of drone defibrillators to the locations of cardiac arrests.

Alok Dand

Wichita State University

axdand@shockers.wichita.edu

Alok Dand is a PhD student in industrial systems and manufacturing engineering at Wichita State University (WSU). He has done his master's in engineering management from WSU and bachelor's in aerospace engineering from SRM University, India. Prior to moving to Wichita, he worked as SAP system administrator at Accenture, India.

He currently working as a business and data analyst at Airbus and at the Industry Assessment Center. His current interests include supply chains, risk management, data science, sustainability, and digital transformation.

Qiyuan Deng

Singapore Management University
qiyuan.deng.2015@pbs.smu.edu.sg

Qiyuan Deng is a fifth-year PhD candidate in the operations management program, at the Lee Kong Chian School of Business, Singapore Management University. Her research interests are e-commerce, omni-channel retailing, innovative platforms, and operations management under social interactions. In her current research, she focuses on creating novel models to capture trendy and important phenomena in these areas that are understudied.

The primary research methodologies she employs are game theory and theory of social and economic networks. Moreover, she plans to apply data-driven decision-making techniques to address important issues in these areas. She has a paper titled "Urban Consolidation Center or Peer-to-Peer Platform? The Solution to Urban Last Mile Delivery" under review for *Manufacturing & Service Operations Management* and another paper, "Product Description and Consumer Reviews in Omni-channel Retailing," under review for *Management Science*. In addition, she also has a working paper, "Competition and Cooperation of Key Opinion Leaders in Influencer Marketing."

Shailesh Divey

Rensselaer Polytechnic Institute
diveys@rpi.edu

Shailesh Divey is a doctoral research fellow in operations management at Rensselaer Polytechnic Institute. He is concurrently pursuing a master's in economics, with a focus on econometric modeling. His research focuses on supply chain risk management, particularly modeling and evaluating supply chain disruptions and investigating optimal solutions for disruption mitigation using analytical and game-theoretic approaches. His research interests include supply chain risk management, data-driven operations management, and predictive analytics for decision making.

Chaosheng Dong

University of Pittsburgh
chaosheng@pitt.edu

Chaosheng Dong is a PhD candidate in the Department of Industrial Engineering at the University of Pittsburgh. His current research focuses on nonconvex optimization, multiobjective optimization, online learning, and inverse optimization. He is also interested in personalized recommender systems and reinforcement learning. He worked at Amazon as an applied scientist intern in machine learning during the summer of 2019. He is now working at ByteDance as an applied machine learning intern.

Fan E

McGill University
fan.e@mail.mcgill.ca

Montreal winter is incomparable to PhD study, which can be fun and always has an end in sight. Fan E mainly worked with data analysis tools and robustified regression models for her first project; however, she is more interested in combining learning and decision models. Fan is currently working on a partially observable Markov decision process for mental illness. If everything goes well, she may or may not graduate in two years. She always keeps a curious mind.

Vahid Eghbal Akhlaghi

University of Iowa
vahid-eghbalakhlaghi@uiowa.edu

Vahid Eghbal Akhlaghi obtained his BS and MS in industrial engineering, and currently, he is in his third year of his PhD in business analytics at the University of Iowa. He completed his bachelor's at Tabriz University, Iran,

and his master's at Middle East Technical University, Turkey. During his master's, Vahid worked on several robotic cell-scheduling projects, which resulted in published papers and conference presentations. His works can be found in journals such as *Computers & Operations Research* and *Robotics and Computer-Integrated Manufacturing*. As a doctoral student, Vahid's dissertation focused on disaster logistics on islands. He examines ways of mitigating logistics problems impacted by natural disasters with a focus on Puerto Rico and the challenges associated with fuel distribution on islands immediately after a disaster. As a result of this research, he prepared a paper to be submitted to the journal *Transportation Research Part E* under the supervision of Prof. Ann Campbell.

Hussein El Hajj
Virginia Tech
hme35@vt.edu

Hussein El Hajj is a PhD candidate in the Grado Department of Industrial and Systems Engineering at Virginia Tech, majoring in operations research. His research interests lie in the application of operations research methodologies and statistical tools to problems arising in the healthcare sector, with a specific focus on genetic screening. Methodologically, he has expertise in probability and optimization theory, and modeling, assessment, and mitigation of risk under uncertainty.

Tianshu Feng
University of Washington

Tianshu Feng received his BS degree in statistics from the University of Science and Technology of China, Hefei, China, in 2015. He is currently pursuing his PhD degree in industrial and systems engineering at the University of Washington in Seattle. His research interests include statistical model development for data analysis in a variety of areas, such as transportation and healthcare. His thesis focuses on semicontinuous zero-inflated data analysis to address problems encountered when analyzing semicontinuous zero-inflated transportation datasets.

Margaret Golz

Ali Hajjar
University of Wisconsin-Madison
hjaar@wisc.edu

Ali Hajjar is a fifth-year PhD student in the Department of Industrial and Systems Engineering and the Health Systems track at the University of Wisconsin-Madison. Ali is interested in medical decision making and operational efficiency in healthcare delivery systems. His primary methodological and computational research interest is stochastic optimization, particularly completely and partially observable Markov decision processes. Ali's dissertation focuses on personalizing the preventive care management for patients with multiple chronic conditions. He investigated the case of Type 2 diabetes and breast cancer screening to demonstrate how his model performs, where he found some very important breast cancer screening policy insights that were not previously recognized by the medical community.

Ramkumar Harikrishnakumar
Wichita State University
rxharikshnakumar@shockers.wichita.edu

Ramkumar Harikrishnakumar is a PhD student in industrial systems and manufacturing engineering at Wichita State University (WSU). He has a master's degree in industrial engineering from WSU and a bachelor's degree in production engineering from Anna University (MIT campus), India. He has also worked as industrial engineer at Milacron in McPherson, Kansas. During his master's at WSU, he worked on establishing a practical approach to project scheduling using simulation techniques. He later expanded his research to develop a multicriteria decision-making approach for identifying and ranking the crucial critical paths in a project network in the manufacturing industry. His research interests include supply chain resilience, big data in supply chain, and deep learning techniques.

Daniela Hurtado

Fahard Imani

Niloufar Izadinia

Poonam Jassi

IE University

pjassi10@gmail.com

Poonam Jassi is a current student in the DBA program at IE University. She completed her coursework and has successfully passed her PhD proposal defense, putting her in the final stages of preparation of her dissertation. Poonam's interests are in operations management within healthcare. She has worked in large organizations overseeing multisite operations of direct care staff. Poonam's study contributes to a nascent stream of research that bridges operations management and human resource management, showing how operating decisions in the planning process can have important consequences on the quality and cost of care. Her future interests are to continue to serve as a practitioner in healthcare leadership, using the insights from her research to improve process and service delivery. She would also like to enter the world of academia by way of sharing her research and her professional experience in a university classroom setting.

Elnaz Kabir

Fatemeh Karami

University of Louisville

Fatemeh Karami is a PhD candidate in industrial engineering in University of Louisville. In addition, she is a research data analyst in the Johns Hopkins University School of Medicine. Her research focus is to use optimization and simulation techniques to design an organ allocation system that minimizes geographic disparity in access to organ transplants. In her research, Fatemeh uses nonlinear optimization models, robust optimization, discrete event simulation, machine learning algorithms, and survival analysis. She received a National Science Foundation I-Corps award for her research in 2017. She is on the job market for a full-time position in summer 2020. Her areas of interest are optimization, simulation, and machine learning. She also holds MS and BS degrees in industrial engineering from Iran University of Science and Technology and Khaje Nasir University of Science and Technology.

Samira Karimzadeh

Iowa State University

samirak@iastate.edu

Samira Karimzadeh is a graduate research assistant at Iowa State University. She is doing her PhD in predictive analytics with an application in plant breeding. Her focus is on using data science and machine learning methods to capture genotypic by environmental interactions in order to design a decision support system that can provide some applications of predictive/prescriptive optimization in plant breeding. Her research is granted by Syngenta Crop Co. As a part of her research, she has developed a new method to deal with extremely sparse proximity matrices in data clustering.

Reem Khir

Georgia Institute of Technology

Reem Khir is a fourth-year PhD student at the H. Milton Stewart School of Industrial and Systems Engineering at Georgia Tech, with a concentration in supply chain engineering. She received her BS in industrial and systems engineering and MS in engineering management, both from Qatar University in 2011 and 2014, respectively. Her research interest lies at the intersection of operations research and the design and planning of logistics and supply chain systems.



Rahman Khorramfar

Graduate Research Assistant, North Carolina State University
rkhorra@ncsu.edu

Rahman Khorramfar is a third-year PhD student in the Industrial and Systems Engineering Program of North Carolina State University. He obtained his bachelor's degree from the University of Tabriz and master's from the Sharif University of Technology, Iran. As a PhD student Rahman has engaged in three research projects so far, all of which involve operations research and related fields. His first project was a multistage stochastic program for a capacity expansion problem with temporary and permanent capacity types. In the second project they tried to develop bounding methods for general multistage stochastic programs based on the subtree decomposition of the scenario tree. The third project, which is his dissertation problem, is an National Science Foundation-funded project; he is currently part of a team of six professors and graduate students working on a bilevel problem to streamline the decision-making process in a semiconductor company.

Arvind Krishna

Georgia Institute of Technology
akrishna39@gatech.edu

Arvind Krishna is a fourth-year PhD student in the statistics track of the industrial engineering department of Georgia Tech. Currently, he is more inclined toward academia; however, he would like to explore opportunities in industry as well. Apart from research, he is passionate about teaching and mentoring students, which makes him more excited about academia. Arvind has a B.Tech and M.Tech in mechanical engineering from IIT Bombay, India. After graduating he worked for five years in a data analytics firm called Fractal Analytics. Working with real problems motivated him to pursue a master's in statistics and now a PhD. He is also an adventurer and athlete. Recently he biked from Atlanta to the highest point in Alabama. Arvind ran a marathon this year and is looking to train for triathlons. In addition, he enjoys bachata dancing.

Behshad Lahijanian

Bin Li

Singapore Management University
bin.li.2015@pbs.smu.edu.sg

Bin Li is from Singapore Management University and is currently working on agricultural operations, such as commodity processing and farm management. For instance, one of his papers in this area investigates the economic and environmental implications of converting organic waste into a saleable by-product.

Besides the pure agricultural operations, he is interested in research on OM/finance interface in agribusiness—for instance, how to finance the small famers and how to integrate operational and financial hedging in farm management.

Menglong Li

UIUC
ml10@illinois.edu

Menglong Li is a fourth-year PhD student in the industrial engineering department of University of Illinois at Urbana-Champaign (UIUC). Before entering UIUC, he completed his undergraduate study in Tsinghua University and then went to University Pierre and Marie Curie for a master's in math. He is interested in stochastic optimization; discrete convex optimization; and their applications in inventory management, revenue management, and healthcare scheduling. He developed several fundamental properties of M -natural-convexity (one of the main concepts in discrete convex analysis), especially a property on a nonincreasing optimal solution, and illustrated their significance in various important operations models.

He also did an industrial project on demand learning that aims to forecast the demand of each product on each shelf in the next week, and he finally achieved a very high average accuracy through stacking various machine learning algorithms. In his leisure time, he likes playing badminton, swimming, and watching movies. He is also interested in photography.

Tianyi Liu

Georgia Institute of Technology
tliu341@gatech.edu

Tianyi Liu is a PhD student in the H. Milton Stewart School of Industrial and Systems Engineering at the Georgia Institute of Technology. He was born in China and received his BS in mathematics from Nanjing University, China, in 2016. His major is operations research. His current research interests include stochastic nonconvex optimization, deep learning theory, and simulation.

Kevin Mayo

Indiana University

Kevin Mayo studies the interplay between turnover rates and operations toward being able to answer the question, "What is the optimal level of turnover in an operational context?" Current research projects include understanding how executives make significant operational decisions following executive turnover, the impact of scheduling decisions on turnover rates, and the effects of turnover on operations with competition between firms. Previously he studied the genetics of the onset and progression for Alzheimer's diseases at the Washington University School of Medicine; he has an MBA from Indiana University and returned to academia to pursue his PhD in operations management.

Duncan McElfresh

University of Maryland
dmcelfre@math.umd.edu

Duncan McElfresh is a PhD student in applied math and computer science at the University of Maryland, College Park. His research centers on applications of computer science for social good; recently he has worked on kidney exchange, public housing allocation (with the Los Angeles Homeless Services Authority), and blood donation (with Facebook). This work involves approaches from matching, recommender systems, preference elicitation, and machine learning. These real-world domains are rife with challenges and often require considerations of uncertainty, incentives, and risk aversion.

Prashant Meckoni

University of Massachusetts Amherst
meckoni@umass.edu

Prashant Meckoni is a fifth-year doctoral student in the industrial engineering and operations research program at the University of Massachusetts. He has previously worked on intervention strategies related to cervical cancer. He has recently won the best student paper award for his work on appointment systems in primary care in the 2019 Institute of Industrial and Systems Engineers' Annual Conference in the Health Systems track. He has a keen interest in optimization algorithms and optimization-related computing. Prashant has an undergraduate engineering degree in information technology and a graduate degree in industrial engineering. For more information, visit his webpage at <https://people.umass.edu/meckoni>.

Rodrigo Mercado

University of Massachusetts Amherst
rodmerfdez@gmail.com

Rodrigo Mercado is from Guadalajara, Mexico, where he studied mechanical and electrical engineering at the University of Guadalajara. He then worked for three years in the aerospace industry at GE Aviation, where he worked on FEM and rotordynamic analysis. In 2014 Rodrigo was awarded the Fulbright scholarship for his PhD studies at the University of Massachusetts and is currently a fifth-year PhD student in industrial engineering. His research is focused on energy planning and development. He is currently studying how Mexico's national climate change goals affect the development of the electrical grid, complementing high-level, top-down studies with a bottom-up approach using a detailed model of the Mexican grid (PEGyT) and incorporating multicriteria decision analysis to evaluate the sustainability of expansions to the electrical grid.

Mohammadsadegh Mikaeili

Tim Murray

Hideaki Nakao

Peter Nesbitt

Lieutenant Colonel, Colorado School of Mines
nesbitt@mines.edu

Peter and his wife enjoy travelling within the United States and abroad with their two children. He has served in the Army since 1997, first as a cavalry scout and now as operations research practitioner. Earning a master's in O.R. from the Naval Postgraduate School in 2010, Kevin immediately applied these new skills at a national lab in Monterey, California.

As lead researcher, he led teams developing diverse research producing results from unobtrusive traumatic brain injury tests for the Veteran's Affairs War Related Illness and Injury Center to a novel threat network interdiction model for the Joint Warfare Analysis Center. Although optimization is his specialization, he is versed in applied decision analysis and operational assessment for large organizations. His doctoral research focuses on applying optimization techniques to improve industrial design and production scheduling in the underground mining industry.

Hao Pan

Linda Pei

Northwestern University
lindapei2016@u.northwestern.edu

Linda Pei is a PhD student advised by Professor Barry Nelson and is entering her fourth year of study. Linda is broadly interested in stochastic simulation methodology. Her research agenda involves harnessing modern computing power to analyze simulation problems in new ways. She is currently developing a parallel simulation algorithm called "PASS" (Parallel Adaptive Survivor Selection) for very large-scale ranking and selection. Her other projects include "simulation analytics" to use simulation output data in a "big data" style to explain system behavior beyond long-run summary statistics. She enjoys rock climbing, running, vegan cooking, and electronic music.

Ben Rachunok

Purdue University
brachuno@purdue.edu

Ben Rachunok is a PhD candidate in the School of Industrial Engineering at Purdue University, currently in his final year. He studies the response of communities to disasters and natural hazards, primarily through the use of O.R. methods. Recently, he has worked to develop algorithms that can predict how communities will be impacted by natural disasters by analyzing their tweets. Ben is currently on the market for an assistant professorship in IE/OR or CS or a postdoc in a variety of related fields.

For more info or to be in contact, check out <http://brachunok.com> or find him at the session he's hosting on data-driven disaster resilience on Monday, October 21, at 11am in Yakima, Room 1, Session MB57.

Arjun Kodagehalli Ramachandra

Xu Rao
UC Berkeley

Xu Rao is a fifth-year PhD student in the Department of Industrial Engineering and Operations Research at the University of California, Berkeley. Her research interests include combinatorial optimization and approximation algorithms. Upon graduation, she is considering job opportunities in technology industry as well as academia.

Connor Riley
Georgia Institute of Technology
ctriley@gatech.edu

Connor Riley is a PhD student in operations research at the H. Milton Stewart School of Industrial and Systems Engineering. He received a bachelor's degree in computer science and engineering from the University of Connecticut and studied operations research at the University of Michigan for two years prior to joining Georgia Tech. His research resides at the intersection of artificial intelligence and optimization. Particularly, he is interested in applying artificial intelligence techniques such as machine learning to enhance existing optimization algorithms. His current research focuses on large-scale vehicle routing problems for on-demand multimodal transportation to demonstrate more attractive alternatives to existing public transportation solutions.

Cesar Ruiz
University of Arkansas
caruizto@uark.edu

Cesar Ruiz has been a PhD candidate in the Industrial Engineering Department at the University of Arkansas since 2016. He received his bachelor's degree in business engineering from Superior School of Business and Economics, El Salvador. His research interests are in reliability modeling, Bayesian statistics, and inventory control. He was a finalist in the Quality Control and Reliability Engineering Division Best Student Paper Competition during the IISE annual meetings in 2017 and 2018. He received the Mathematical Methods in Reliability conference best paper award in 2019. He is a student member of IISE, SRE, and INFORMS.

Minseok Ryu
University of Michigan
msryu@umich.edu

Minseok Ryu is in his fifth year of the PhD program in the Department of Industrial and Operations Engineering at the University of Michigan. Under the supervision of Dr. Ruiwei Jiang, his current research is in the field of operations research and data mining with a focus on formulating mathematical models of decision-making problems that entail nonlinearity and uncertainty and developing their solution methodologies based on mixed-integer programming approaches. His current application interests are in the areas of power and water system operations and healthcare operations. Previously, he obtained both bachelor's and master's degrees from the Department of Aerospace Engineering at Korea Advanced Institute of Science and Technology. He was a Post Baccalaureate Research Fellow at Northwestern University under the supervision of Dr. Sunil Chopra and was a summer intern at Los Alamos National Laboratory under the supervision of Dr. Harsha Nagarajan.

Hosseinali Salemi

Esmat Sangari
Northwestern University

Esmat Sangari is a PhD candidate of industrial engineering and management sciences at Northwestern University. She is mainly interested in conducting research on supply chain management and operations research, with an emphasis on supply chain optimization, pricing and revenue management, and risk management. Esmat's doctoral dissertation is focused on pricing strategies and price-matching decisions in omnichannel retail systems. Esmat holds a BS in industrial engineering and systems analysis (2013) and an MS in industrial engineering (2015), both

from the University of Tehran, Iran. Her master's thesis was on the economic lot and delivery scheduling in multitier supply chains. Esmat has a great interest in both teaching and research. Her focus is on developing supply chain management models and pricing strategies that are effective and easy to implement in practice.

Shervin Shams-Shoaee

Yeming Shen

Rensselaer Polytechnic Institute
sheny15@rpi.edu

Yeming Shen is currently a PhD student in the Department of Industrial and Systems Engineering at Rensselaer Polytechnic Institute. He received his bachelor's degree in mathematics and master's degree in operational research and cybernetics from Sun Yat-Sen University, Guangzhou, China. His research interests are in the applications of operations research and game theory, the development and improvement of (heuristic) algorithm of optimization problems, and the field of decision science and network analysis. His current research focuses on incorporating information uncertainty and interdependent network structure into the study of network interdiction problem.

Aditya Shetty

University of Rochester
aditya.s16@gmail.com

Aditya Shetty is a third-year PhD student in the operations management department at the Simon Business School, University of Rochester. His current research focuses on the welfare and fairness implications of preferential services in congested queuing systems. Another field he is exploring is the potential application of machine learning techniques to inventory control problems. Prior to this, he worked as a software developer in the research group of an Indian e-commerce company.

Chokdee Siawsolit

Claremont Graduate University
chokdee.siawsolit@cgu.edu

Greetings from the land of smiles. Chokdee, whose name translates literally to "good luck," is currently a PhD student of management, with a mixed of background in engineering and bioscience. His research revolves around the grocery industry, including inventory, omnichannel, and food waste.

Park Sinchaisri

Doctoral Candidate, The Wharton School
swich@wharton.upenn.edu

Park Sinchaisri is a fourth-year doctoral student in O.R. of the Wharton School at the University of Pennsylvania. He received his undergraduate degree from Brown University in computer engineering and applied mathematics-economics and his SM in computation for design and optimization from Massachusetts Institute of Technology. His current research interests include behavioral operations management, pricing and revenue management, urban operations research, and machine learning.

Deeksha Sinha

Massachusetts Institute of Technology
deeksha@mit.edu

Sinha Deeksha is a fifth-year doctoral student in the Operations Research Center, Massachusetts Institute of Technology. Her research interests are revenue management focusing on fast algorithms for revenue management applications, agricultural lending in developing countries for small farmers and techniques for early detection of cancer using information on genetic mutations.

Ioannis Spantidakis

Eric Specking

University of Arkansas
especki@uark.edu

Eric Specking serves as the director of Undergraduate Recruitment, Outreach, and Summer Programs for the College of Engineering at the University of Arkansas. Specking received a BS in computer engineering and a an MS in industrial engineering from the University of Arkansas and will graduate with a PhD in industrial engineering from the University of Arkansas in May 2020. His research interests include decision quality, strategic management, entrepreneurship, systems engineering, engineering and project management, and engineering education.

Ineen Sultana

Yingcong Tan

Concordia University
yingcong.tan@gmail.com

Yingcong Tan is a third-year PhD student at Concordia University under the supervision of Professor Daria Terekhov and Professor Andrew Delong. His research is focused on one challenge that often occurs in solving real-world optimization problems: developing a representative model. The models need to be an accurate representation of the real-world problem so that the solutions derived from these models are indeed useful. Thus, he focused on studying inverse optimization problems, which was developed in the O.R. literature to learn a representative model of an optimization process from real observations. In particular, we developed a novel algorithm, which is called deep inverse optimization, for solving the inverse linear optimization problems using the combination of the interior point method from the O.R. literature and the backpropagation technique from the deep learning literature. After completing PhD degree, his goal is to pursue a job in academia to continue doing the research.

Uthaipon Tantipongpipat

Georgia Institute of Technology
uthaipon@gmail.com

Tao Tantipongpipat is a fourth-year PhD student in algorithms, combinatorics, and optimization at Georgia Institute of Technology, based in the School of Computer Science. His research interests include machine learning algorithms, combinatorial optimization, differential privacy, and fairness in machine learning (ML). He is grateful to be advised by Mohit Singh. More specifically, their current research has been finding better polynomial-time approximation algorithms for optimal design problems in statistics. This line of work is in collaboration with Aleksandar (Sasho) Nikolov and Vivek Madan. On differential privacy, his team, including Rachel Cummings, is working on the differentially private generation of synthetic data via generative adversarial networks. This project previously won first prize and a People's Choice Award (\$20,000 total) in the National Institute of Standards and Technology's privacy challenge. On fairness in ML, he and his coauthors defined a notion of fairness in principal component analysis and proposed an algorithm that has theoretical guarantee and is practically useful. The work appeared at NeurIPS 2018.

Sıdika Tunç

PhD Student, UCL School of Management
sidika.tunc.16@ucl.ac.uk

Sıdika Tunç is a fourth-year PhD student of operations and technology at UCL School of Management. She is working with Ersin Körpeoğlu, Gizem Körpeoğlu, and Christopher S. Tang. Her research focuses on innovation management, and online crowdsourcing, and crowdfunding platforms. Specifically, she studies the optimal design of innovation contests on crowdsourcing platforms and the optimal design of crowdfunding campaigns. She holds an MS (2014) and a BS (2016) in industrial engineering from Middle East Technical University, Turkey. Before joining the UCL School of Management, she was a research and teaching assistant at Middle East Technical University.



Kaan Unnu

Rensselaer Polytechnic Institute
unnuk@rpi.edu

Kaan Unnu is a PhD candidate in the Department of Industrial and Systems Engineering at Rensselaer Polytechnic Institute. Unnu holds an MS degree in quality management and a BS in industrial engineering. He has over 15 years of experience in various sectors with supply chain and quality leadership roles. His research addresses that most supply chains today are designed to be either responsive with high cost or less responsive with low cost. Given the change in customer expectations and emerging technologies, new approaches to classic supply chain designs are certainly needed, and his research focuses on developing prescriptive analytics on these new approaches. He recently extended quantitative models to aid in understanding who, when, and how to utilize on-demand warehousing strategies for a distribution network design and developed heuristic algorithms for the large-scale dynamic capacitated location-allocation optimization models.

Adam VanDeusen

University of Michigan
ajvandeu@umich.edu

Adam VanDeusen is a PhD candidate at the University of Michigan, where he studies industrial and operations engineering under Dr. Amy Cohn. His work applies engineering tools to the evaluation of public health policy, specifically in access to healthcare. He is interested in helping leaders in healthcare make informed, systematic decisions to improve quality of care. He previously worked as Senior Director, Clinical Programs, at the Health Management Academy, and as a health systems engineer at Mayo Clinic. Adam earned his master's degree in industrial and operations engineering at the University of Michigan and his Master's of Public Health in chronic disease epidemiology at Yale School of Public Health.

Vishnu Vijayaraghavan

Jesse Wales

Colorado School of Mines
jwales@mines.edu

Jesse Wales is an active duty Air Force officer currently assigned to earn a PhD in operations research at the Colorado School of Mines. Jesse is in his third year of the doctoral program. His research area concerns optimization of concentrated solar power plant operations. Following graduation, Jesse will be assigned to the faculty at the Air Force Institute of Technology teaching and advising graduate students in the Department of Operational Sciences. Jesse has not decided if he is interested in a career in academia or industry after retiring from the Air Force in the next five to 10 years.

Peng Wang

Wei Wang

University of Pittsburgh

Wei Wang is a fifth-year student in the Department of Industrial Engineering at the University of Pittsburgh. His research focuses on generalized security games and applications on protecting cyberphysical systems. He formulated multilevel optimization models considering the interaction between competing game players. Traditional models, such as the defender-attacker-defender game, are some special cases of his models. Reformulation- and decomposition-based algorithms and fast approximation methods are developed to solve these sophisticated problems. He applied his models and solving methods on protecting complex cyberphysical systems, such as power networks, and the resulting defending strategies decrease damages and loss significantly compared with existing protecting methods.

Zimo Wang

Anqi Wu

University of Illinois at Urbana-Champaign
anqiwu2@illinois.edu

Anqi (Angie) Wu is a fourth-year PhD student of operations management at Gies College of Business, University of Illinois at Urbana-Champaign. She is an empirical operations management researcher. Her main research area is environmental operations management. Her research interest extends to public sector operations and healthcare policies. She has worked in collaboration with government entities (e.g., U.S. Food and Drug Administration) and nonprofit organizations (e.g., Carbon Disclosure Project).

Jing Yang

University of Pittsburgh

Jing is a fourth-year PhD student in department of industrial engineering, majoring in optimization. Her research interests include mixed integer programming, bilevel optimization, network interdiction, and decision making under uncertainty, among others. Currently she is doing research on shortest path interdiction problem with incomplete information and limited feedback from the evader. After graduation, she'd like to keep doing research, either as a faculty member or a research scientist in industry.

Pengfei Yi

Beihang University
yipengfei@buaa.edu.cn

Pengfei Yi has been a PhD student at Beihang University since September 2018. Before that, he received his master's degree in electronics and communication engineering from Beijing Institute of Technology in 2018, and he obtained his bachelor's degree in electronic science and technology from Northwestern Polytechnical University in 2016. In his current research, he is mostly interested in data compression and indexing, and he is exploring the impact of a high-speed railway on other transportation modes.

Yingqiu Zhang

Virginia Tech
yqzhang7@vt.edu

Yingqiu received a BS degree in industrial and systems engineering from Tianjin University, Tianjin, China, in 2015. Currently, she is pursuing a PhD degree in industrial and systems engineering from Virginia Tech, Blacksburg. Her research interests include computational geometry, mixed integer programming, stochastic programming, and their applications in power systems.

Wanrong Zhang

Wenjun Zhu

University of Wisconsin-Madison
wzhu83@wisc.edu

Wenjun Zhu is a second-year PhD student in industrial and systems engineering at the University of Wisconsin-Madison. Her research interests include stochastic modeling, data analytics, and simulation with a primary focus area in healthcare and service industry. She really likes healthcare-related topics and has worked on projects with UW Health and Dean Clinic. At present, she'd like to find a teaching position after graduation and keep working on healthcare system improvement.

Committee



2019 COMBINED COLLOQUIA CHAIR

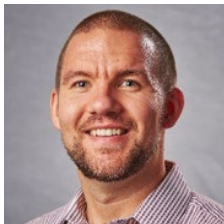


Sandra D. Eksioglu

**Hefley Professor in Logistics and Entrepreneurship
Department of Industrial Engineering
University of Arkansas**

Sandra Eksioglu is the Hefley Professor in Logistics and Entrepreneurship in the Department of Industrial Engineering, University of Arkansas. She received her PhD in industrial engineering from the University of Florida. Prior to joining the University of Arkansas, she was a faculty member at Mississippi State and Clemson universities. Her research interests include network optimization, stochastic programming, energy systems optimization, and supply chain optimization. She is an active member of INFORMS, the Institute of Industrial and Systems Engineers, and the American Society for Engineering Education.

2019 DOCTORAL STUDENT COLLOQUIUM CHAIRS



Hugh Medal

**Assistant Professor
University of Tennessee, Knoxville
hmedal@utk.edu**

Dr. Hugh Medal is an assistant professor in the Department of Industrial and Systems Engineering at the University of Tennessee. His research and teaching interests are in optimization, with an emphasis on stochastic optimization and black-box/derivative-free optimization. He has applied optimization methodologies to a variety of problems such as preparing for wildfires, measuring the vulnerability of wireless networks, and mitigating risks in supply chains, and he has published articles in journals such as *Naval Research Logistics*, *IIE Transactions*, *Transportation Research Part B*, and *Networks*. His research has been funded by agencies such as the U.S. Army Engineering Research and Development Center, the U.S. Joint Fire Science Program, and the U.S. Department of Homeland Security. He is a member of the Institute for Operations Research and the Management Sciences and formerly served on the board of directors for the Operations Research division of the Institute for Industrial and Systems Engineering.

Speakers & Presenters





Laura Albert
Professor, University of Wisconsin-Madison

Laura Albert, PhD, is a professor of industrial & systems engineering and a Harvey D. Spangler Faculty Scholar at the University of Wisconsin-Madison. Her research interests are in the field of operations research, with a particular focus on discrete optimization with application to homeland security and emergency response problems. Albert's research has been supported by the National Science Foundation, Department of Homeland Security, Department of the Army, and Sandia National Laboratory.

She has authored or co-authored more than 60 publications in archival journals and refereed proceedings. She has been awarded many honors for her research, including the INFORMS Impact Prize, four best paper awards, a National Science Foundation CAREER award, and Department of the Army Young Investigator Award. Albert is the INFORMS Vice President of Marketing, Communication, and Outreach. She is the author of the blogs Punk Rock Operations Research and "Badger Bracketology." You can find her on Twitter at @lauraalbertphd.



David Alderson
Professor, Naval Postgraduate School

David Alderson is a professor in the operations research department and serves as director for the Center for Infrastructure Defense at the Naval Postgraduate School (NPS). Dr. Alderson's research focuses on the function and operation of critical infrastructures, with particular emphasis on how to invest limited resources to ensure efficient and resilient performance in the face of accidents, failures, natural disasters, or deliberate attacks. His research explores tradeoffs between efficiency, complexity, and fragility in a wide variety of public and private cyber-physical systems. Dr. Alderson has been the principal investigator of sponsored research projects for the Navy, Army, Air Force, Marine Corps, and Coast Guard.

Dr. Alderson received his doctorate from Stanford University and his undergraduate degree from Princeton University. He has held research positions at the California Institute of Technology, the University of California at Los Angeles, the Xerox Palo Alto Research Center, and the Santa Fe Institute. He has extensive industry experience and has worked for several venture-backed startup companies. His early career was spent developing technology at Goldman Sachs & Co. in New York City.



Behnam Behdani
Senior Research Scientist, Amazon

Behnam Behdani is a senior research scientist at Amazon. He is an operations research and machine learning practitioner with more than a decade of experience applying science to high-impact business problems. Behnam's contributions at Amazon have spanned multiple business areas including last-mile delivery, cloud computing, and physical retail. Prior to joining Amazon, Behnam worked in the logistics industry on scheduling, network design, predictive modeling, and big data analytics problems.

Behnam has a PhD in industrial and systems engineering from the University of Florida. His PhD dissertation focused on discrete and geometric approaches to lifetime maximization in wireless sensor networks.





Jeff Camm
Associate Dean of Business Analytics
Wake Forest University

Jeff Camm is associate dean of business analytics and the Inmar Presidential Chair in Analytics at the Wake Forest University School of Business. Professor Camm's scholarship is on the application of optimization modeling to difficult decision problems. His research has been funded by the U.S. Environmental Protection Agency, Argonne Labs, U.S. Office of Naval Research, and the U.S. Air Force Office of Scientific Research. Professor Camm is coauthor of nine textbooks, including the best-selling text *Business Analytics*.

He has consulted for numerous corporations including, among others, Procter & Gamble, Owens Corning, General Electric, Tyco, Ace Hardware, Boar's Head, Brooks Sports, and Kroger. Camm was the recipient of 2006 INFORMS Prize for the Teaching of OR/MS Practice, as well as the 2016 Kimball Medal for service to the profession. In 2017, he was named an INFORMS Fellow.



Carleton Coffrin
Scientist, Los Alamos National Laboratory

Carleton Coffrin is a staff scientist in the Los Alamos National Laboratory's Advanced Network Science Initiative; he received a PhD in computer science from Brown University in 2012 under the supervision of Pascal Van Hentenryck. His research interests focus on how optimization algorithms can be leveraged to improve the design, operation, and resilience of critical infrastructure networks. To that end, his experience spans a variety of optimization topics including mathematical programming, constraint programming, and local search. Recently, Dr. Coffrin has been exploring how novel computing architectures, such as quantum computers, optical parametric oscillators, and memristor networks, can be utilized in optimization algorithms.



Brian Denton
Professor and Department Chair
University of Michigan

Brian Denton is chair of the Department of Industrial and Operations Engineering at the University of Michigan. His research interests are in data-driven sequential decision making and optimization under uncertainty with applications to medicine. He has a cross-appointment in the School of Medicine and is a member of the Cancer Center and the Institute for Healthcare Policy and Innovation (IHPI) at the University of Michigan. Before joining the University of Michigan, he worked at IBM, the Mayo Clinic, and North Carolina State University. His honors and awards include the National Science Foundation CAREER award, INFORMS Service Section Prize, INFORMS Daniel H. Wagner Prize, Institute of Industrial Engineers Outstanding Publication Award, and Canadian Operations Research Society Best Paper Award. He served on the editorial boards of *Health Systems*, *IIE Transactions*, *Interfaces*, *Manufacturing & Service Operations Management*, *Medical Decision Making*, *Operations Research*, *Optimization in Engineering*, and *Production and Operations Management*. He served as the founding Medical Decision-Making Department Editor for *IIE Transactions on Healthcare Systems Engineering* from 2008 to 2015. He has co-authored more than 100 journal articles, conference proceedings, book chapters, and patents. He is past chair of the INFORMS Health Applications Section and previously held positions as secretary and president of INFORMS.



Peter Frazier
Associate Professor/Staff Data Scientist
Cornell University/Uber

Peter Frazier is an associate professor in the School of Operations Research and Information Engineering at Cornell University and a staff data scientist at Uber. He received a PhD in operations research and financial engineering from Princeton University in 2009. His academic research is on the optimal collection of information, including Bayesian optimization, incentive design for social learning, and multiarmed bandits, with applications in applications in e-commerce, the sharing economy and materials design.

At Uber, he has managed UberPool's data science group, has helped design Uber's pricing system, and currently designs systems that give drivers more control over the trips they do on the Uber platform. He is an associate editor for *Operations Research*, *ACM TOMACS*, and *IISE Transactions*, and he is the recipient of an AFOSR Young Investigator Award and an NSF CAREER Award.



Michael Gorman
Niehaus Chair of Operations and Analytics
University of Dayton

Professor Michael F. Gorman holds the Niehaus Chair of Operations and Analytics at the University of Dayton Department of Management Information Systems, Operations Management, and Decision Sciences. He has over 17 years of academic experience at University of Dayton, and 10 years practical experience at BNSF Railway. He has over 50 academically reviewed publications and 100 conference and invited presentations. His specialty is in the applications of analytics, with a focus on transportation and logistics issues.

He is currently the editor-in-chief of the *INFORMS Journal on Applied Analytics* (formerly *Interfaces*) and serves on three other editorial boards. He has been a finalist in the Edelman and Wagner awards of INFORMS. He helped found the Analytics Society as its first president, and created the Innovative Applications of Analytics Award. He has held numerous other elected and volunteer positions at INFORMS. Mike has a bachelor's degree in computer science and economics from Xavier University and an MS in economics and PhD in business and economics from Indiana University.

Georgia-Ann Klutke
Program Director
National Science Foundation

Georgia-Ann Klutke is a program director at the National Science Foundation (NSF). She manages the operations engineering program in the Division of Civil, Mechanical, and Manufacturing Innovation in the Engineering Directorate and serves as the cluster lead for the Operations and Design cluster. Prior to joining NSF, she was professor of Industrial and Systems Engineering at Texas A&M University. She has also served on the faculties of the University of Massachusetts and the University of Texas at Austin.

She holds a BS degree in mathematics from the University of Michigan and a PhD in industrial engineering and operations research from the Virginia Polytechnic Institute and State University.





Susan Martonosi
Professor of Mathematics
Harvey Mudd College

Dr. Susan Martonosi is a professor of mathematics at Harvey Mudd College where she works with extraordinarily talented undergraduates in her research program and classroom. She has supervised over 80 undergraduate research students, several of whom have gone on to receive PhDs in operations research or related fields. Dr. Martonosi has been honored by the Mathematical Association of America with the Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member. From 2014 to 2019 she held the Joseph B. Platt Professorship for Teaching Excellence. Dr. Martonosi serves on the Board of INFORMS as Vice President for Membership and Professional Recognition and has been active in WORMS and the Forum on Education. Her research specialty is public sector applications of operations research, including homeland security and public health. She has also (co-)authored several survey articles pertaining to OR/MS and statistics education, particularly on the topic of sponsored field-based capstone project courses. Dr. Martonosi received her PhD from the MIT Operations Research Center.



Barry Nelson
Walter P. Murphy Professor, Northwestern University

Barry L. Nelson is the Walter P. Murphy Professor of the Department of Industrial Engineering and Management Sciences at Northwestern University and a distinguished visiting scholar at Lancaster University in England. His research focus is on the design and analysis of computer simulation experiments on models of discrete-event, stochastic systems, including methodology for simulation optimization, quantifying and reducing model risk, variance reduction, output analysis, metamodeling, and multivariate input modeling. His application areas are manufacturing, services, financial engineering, and transportation.

He has published numerous papers and three books, including *Foundations and Methods of Stochastic Simulation: A First Course* (Springer, 2013). Nelson is a Fellow of INFORMS and IISE. In 2006, 2013, and 2015, he received the Outstanding Simulation Publication Award from the INFORMS Simulation Society; in 2009, 2011, and 2015, he was awarded the Best Paper–Operations Award from *IIE Transactions*; and in 2019, he received the David F. Baker Distinguished Research Award from IISE. His teaching has been acknowledged by a Northwestern University Alumni Association Excellence in Teaching Award, McCormick School of Engineering & Applied Science Teacher of the Year Award, and the IISE Operations Research Division and IISE Simulation and Modeling Division Teaching awards.



Jennifer Pazour
Associate Professor of Industrial & Systems Engineering
Rensselaer Polytechnic Institute

Jen Pazour is an associate professor of industrial and systems engineering at Rensselaer Polytechnic Institute (RPI) in Troy, NY. Her research and teaching focus on the development and use of mathematical models to guide decision making for logistics and supply chain challenges. Jen is a recipient of a National Science Foundation Faculty Early Career Development (CAREER) Award (2018), Johnson & Johnson Women in STEM2D Scholars Award (2018), Young Investigator Award from the Office of Naval Research (2013), and National Academies of Science Gulf Research Program Early-Career Fellowship (2016). She was awarded the 2018 IISE Logistics and Supply Chain Division Teaching Award and the 2017 Hamed K. Eldin

Outstanding Early Career IE in Academia Award, both national awards from the Institute of Industrial and System Engineers. She holds three degrees in industrial engineering (BS from South Dakota School of Mines & Technology, and MS and PhD from the University of Arkansas). She believes the world needs more people who can think analytically and systematically about complex problems and is an advocate for youth to pursue engineering and logistics careers. More information can be found at her research and teaching blog: <http://jenpazour.wordpress.com/>.



Matthias Poloczek
Uber AI Labs

Matthias Poloczek leads the Bayesian optimization efforts at Uber AI. His research interests lie at the intersection of machine learning and data-driven optimization. Recently, he has focused on enabling Bayesian optimization for exotic black-box problems that have cheap approximations, provide derivative information, or are formulated over a combinatorial domain.



Siqian Shen
Associate Professor, University of Michigan

Siqian Shen is an associate professor in the Department of Industrial and Operations Engineering, University of Michigan at Ann Arbor, and also an associate director for the Michigan Institute for Computational Discovery & Engineering (MICDE). Siqian She received her BS degree in industrial engineering from Tsinghua University, China in 2007, and the MS and PhD degrees in Industrial and Systems Engineering from the University of Florida, USA, in 2009 and 2011, respectively. Her research interests include stochastic programming, network optimization, and integer programming.

Applications of her work include transportation and energy. Her work has been supported by the National Science Foundation, Army Research Office, Department of Energy (DoE), and industrial funds. She is the recipient of the IIE Pritsker Doctoral Dissertation Award (first place), IBM Smarter Planet Innovation Faculty Award, and DoE Early Career Award.



Jianjun Shi
Professor, Georgia Institute of Technology

Jianjun Shi is the Carolyn J. Stewart Chair and Professor in the School of Industrial and Systems Engineering, with a joint appointment in the School of Mechanical Engineering, both at Georgia Institute of Technology. He received his BS and MS in Electrical Engineering from the Beijing Institute of Technology in 1984 and 1987 and his PhD in Mechanical Engineering from the University of Michigan in 1992.

Shi's research is in the area of data-enabled manufacturing, system informatics, and control. His methodologies integrate system informatics, advanced statistics, and control theory, and they fuse engineering systems models with data science methods for design and operational improvements of manufacturing and service systems.

The technologies developed by Shi's research group have been implemented in a wide variety of production systems and produced significant economic impacts. Shi is the founding chair of the Quality, Statistics and Reliability (QSR) Subdivision at INFORMS and currently serving as the editor-in-chief of *IISE Transactions*, the flagship journal of the Institute of Industrial and Systems Engineers (IISE). Shi received numerous awards for his research and teaching.





David Simchi-Levi

Professor, Massachusetts Institute of Technology

David Simchi-Levi is a professor of engineering systems at Massachusetts Institute of Technology. His research focuses on developing and implementing robust and efficient techniques for operations management. He has published widely in professional journals on both practical and theoretical aspects of operations management. His PhD students have accepted faculty positions in leading academic institutes including University of California at Berkeley, Carnegie Mellon, Columbia, Duke Georgia Tech, and Harvard. Professor Simchi-Levi is the editor-in-chief of *Management Science*, one of the two flagship journals of INFORMS. He served as the editor-in-chief of *Operations Research* (2006-2012), the other flagship journal of INFORMS, and of *Naval Research Logistics* (2003-2005). He is an INFORMS Fellow and MSOM Distinguished Fellow; he is also the recipient of the 2014 INFORMS Daniel H. Wagner Prize for Excellence in Operations Research Practice, 2014 and 2009 INFORMS Revenue Management and Pricing Section Practice awards, and Ford 2015 Engineering Excellence Award. He was the founder of LogicTools, which provided software solutions and professional services for supply chain optimization and became part of IBM in 2009. In 2012, he co-founded OPS Rules, an operations analytics consulting company that became part of Accenture in 2016. In 2014, he co-founded Opalytics, a cloud analytics platform company focusing on operations and supply chain intelligence. The company became part of the Accenture Applied Intelligence in 2018.



J. Cole Smith

Associate Provost, Academic Initiatives Professor of Industrial Engineering Clemson University

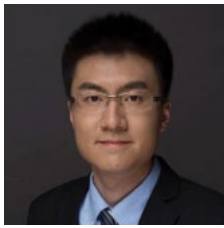
J. Cole Smith is associate provost of academic initiatives and professor of industrial engineering at Clemson University. His research regards mathematical optimization models and algorithms, especially those arising in combinatorial optimization, and he has had the pleasure of collaborating with colleagues across many different disciplines. Smith's awards include the Young Investigator Award from the Office of Naval Research, Hamed K. Eldin Outstanding Early Career IE in Academia Award, Operations Research Division Teaching Award, 2014 Glover-Klingman Prize for best paper in *Networks*, and the best paper award from *IIE Transactions* in 2007. He became a Fellow of IIE in 2018. Smith serves as the chair of the INFORMS Computing Society, INFORMS Vice President of Publications, and IIE Senior Vice President for Continuing Education.



Phebe Vayanos

Assistant Professor of Industrial & Systems Engineering and Computer Science University of Southern California

Phebe Vayanos is an assistant professor of industrial and systems engineering and computer science at the University of Southern California (USC). She is also an associate director of the CAIS Center for Artificial Intelligence in Society at USC. Her research aims to address fundamental questions arising in data-driven optimization with an aim of tackling real-world decision- and policy-making problems in uncertain and adversarial environments. She is also interested in issues surrounding fairness, efficiency, and interpretability in resource allocation and machine learning. Prior to joining USC, she was a lecturer in the Operations Research and Statistics Group at the MIT Sloan School of Management and a postdoctoral research associate in the Operations Research Center at Massachusetts Institute of Technology. She holds a PhD degree in operations research and an MEng degree in electrical and electronic engineering, both from Imperial College London.



Zizhuo Wang

Associate Professor

University of Minnesota/CUHK SZ/Cardinal Operations

Zizhuo Wang is an associate professor in the Department of Industrial and Systems Engineering at the University of Minnesota and Institute of Data and Decision Analytics at the Chinese University of Hong Kong, Shenzhen. Zizhuo Wang received his bachelor's degree in mathematics from Tsinghua University in 2007. He received his PhD in management science and engineering from Stanford University in 2012. His research mainly focuses on optimization problems under uncertainty, especially with applications in revenue management and operations management.

He has published over 30 papers in top journals and conferences and has received several awards in the field. Zizhuo Wang has extensive experiences in working with industry. In 2016, he co-founded Cardinal Operations in China and served as CTO. Cardinal Operations is now the leading company in China that applies optimization and analytics in practice, especially in the retail, logistics, and manufacturing industries. It provides solutions for companies to connect data to decisions and improves their operational efficiencies.



Stefan Wild

**Deputy Division Director, Computational Mathematician
Argonne National Laboratory**

Stefan Wild is a computational mathematician and deputy division director of the Mathematics and Computer Science Division at Argonne National Laboratory and a senior fellow in the Northwestern Argonne Institute for Science and Engineering at Northwestern University. Prior to his current appointment, he was an Argonne Director's Postdoctoral Fellow and DOE Computational Science Graduate Fellow at Cornell University. He obtained his PhD in operations research from Cornell University and BS and MS degrees in applied mathematics from the University of Colorado Boulder. At Argonne he leads a number of multidisciplinary computational science projects. His primary research focus is on algorithms and software for challenging numerical optimization problems.



Candace Yano

**Professor of Operations and Information Technology Management
University of California, Berkeley**

Candace ("Candi") Yano is the Gary and Sherron Kalbach Chair in Business Administration and professor at the Haas School of Business and professor in the Department of Industrial Engineering and Operations Research (IEOR) at University of California, Berkeley. She previously served as associate dean at Haas and department chair in IEOR. She holds an AB in economics, an MS in operations research, and an MS and PhD in industrial engineering from Stanford University. Professor Yano's primary research interests are production, inventory, and logistics management, particularly on how to deal with various sources of uncertainty in these contexts, as well as interdisciplinary problems involving operations and marketing. She has served as the editor-in-chief of *IIE Transactions* and department editor for *Management Science*, as well as in various editorial capacities for *Operations Research*, *Interfaces*, *Manufacturing & Service Operations Management*, *Service Science*, and *Naval Research Logistics*, among others. She served as general chair of the 2014 INFORMS Annual Meeting and is a Fellow of both INFORMS and the Institute of Industrial and Systems Engineers (formerly Institute of Industrial Engineers).



Sponsors



Event Sponsor



Contributing Sponsors

Georgia Tech  H. Milton Stewart School of Industrial and Systems Engineering

