Henry Lam

CONTACT INFORMATION

Department of Industrial Engineering and Operations Research
Columbia University
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New York, NY 10027
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RESEARCH AREAS

Monte Carlo computation, uncertainty quantification, model calibration, data-driven optimization, rare-event and risk analysis

EMPLOYMENT

Columbia University, New York City, New York
Department of Industrial Engineering and Operations Research
Associate Professor — July 2017 –

University of Michigan, Ann Arbor, Michigan
Department of Industrial and Operations Engineering
Assistant Professor — January 2015 – June 2017

Boston University, Boston, Massachusetts
Department of Mathematics and Statistics
Assistant Professor — January 2011 – December 2014

EDUCATION

Harvard University, Cambridge, Massachusetts
Ph.D. Statistics — January 2011
A.M. Statistics — June 2006
Overall GPA: 4.0/4.0

The University of Hong Kong, Hong Kong
B.S. Actuarial Science (First Class Honors) — June 2005
Overall GPA: 3.9/4.0

AWARDS

JPMorgan Chase Faculty Research Award, 2020

Finalist, Best Theoretical Paper, Winter Simulation Conference, 2020

Best Theoretical Paper, Winter Simulation Conference, 2018

NSF Faculty Early Career Development (CAREER) Award, 2017

INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, Second Prize, 2016

Adobe Faculty Research Award, 2016

Finalist, Best Theoretical Paper, Winter Simulation Conference, 2016

INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, Finalist, 2012

INFORMS George Nicholson Student Paper Competition Honorable Mention Prize, 2010

Harvard Statistics Department Post-Qualifying Talk Award, 2008

Hong Kong Croucher Foundation Scholarship, 2008–2009

Harvard GSAS Fellowship, 2005–2006

Hong Kong Chiu Chow Chamber of Commerce Scholarship, 2004, 2005

University of Hong Kong Worldwide Student Exchange Scholarship, 2004

Provost Honors, 2004

Dean's Honors, 2002, 2003, 2005

Various travel awards

Finalist, INFORMS Doing Good with Good OR Competition (supervised students), 2021

Finalist, INFORMS Undergraduate Operations Research Prize (supervised student), 2021

Winter Simulation Conference PhD Colloquium INFORMS I-SIM Award (supervised student), 2021

Funding

National Security Agency (NSA) Young Investigator Grant H98230-13-1-0301. Title: "Design of Robust Methodologies for Efficient Simulation and Sensitivity Analysis for Stochastic Systems". Amount: $39,983. Duration: September 2013–June 2014. Role: PI.

National Science Foundation (NSF) CMMI-1400391/1542020. Title: "A Sensitivity Approach to Assessing Model Uncertainty for Stochastic Systems". Amount: $224,947. Duration: July 2014–June 2018. Role: PI.

National Science Foundation (NSF) CMMI-1436247/1523453. Title: "Collaborative Research: Modeling and Analyzing Extreme Risks in Insurance and Finance". Amount: $350,000. Duration: September 2014–August 2017. Role: PI (Lead-PI: Jose Blanchet, PI: Qihe Tang).

MCubed. Title: "Data-driven Methods in Simulation Modeling and Optimization for Large-scale Dynamic Systems". Amount: $60,000. Duration: November 2015–October 2017. Role: co-PI (PI: Hyun-Soo Ahn, co-PI: Eunshin Byon).

UM Mobility Transformation Center (MTC). Title: "Development of Evaluation Approaches and the Certificate System for Automated Vehicles Based on the Accelerated Evaluation". Amount: $200,000. Duration: May 2016–December 2017. Role: PI (co-PI: David LeBlanc).

Adobe Faculty Research Award 2016. Title: "Scalable Dynamic Optimization in Online Marketing Campaigns". Amount: $50,000. Role: PI.

National Science Foundation (NSF) CMMI-1653339/1834710. Title: "CAREER: Optimization-based Quantification of Statistical Uncertainty in Stochastic and Simulation Analysis". Amount: $500,000. Duration: May 2017–April 2022. Role: PI.

National Science Foundation (NSF) IIS-1849280. Title: "Collaborative Research: Unsupervised Rare Event Learning - With Applications on Autonomous Vehicles". Amount: $225,967. Duration: Feb 2019–Jan 2022. Role: PI (Lead-PI: Ding Zhao).

Google and Tides Foundation. Title: "EMS Resource Deployment Modeling" (with New York City Fire Department). Amount: $700,000. Duration: Jan 2020–Dec 2021. Role: co-PI (PI: Andrew Smyth).

JPMorgan Chase Faculty Research Award 2020. Title: "Calibrating Large-Scale Simulation Models via Distributionally Robust Optimization". Amount: $150,000. Duration: May 2020–Aug 2021. Role: PI.

Columbia Urban Technology Pilot Award. Title: "Optimizing Emergency Response during a Pandemic in Urban Environments". Amount: $85,000. Duration: Sep 2020–Sep 2021. Role: co-PI (PI: Andrew Smyth, co-PI: Jay Sethuraman).

Columbia Urban Technology Pilot Award. Title: "Enhancing Efficiency and Equity in Ambulance Dispatch Operations through Machine Learning Based Optimization". Amount: $85,000. Duration: Jan 2022–Jan 2023. Role: co-PI (PI: Andrew Smyth, co-PI: Jay Sethuraman).

Articles Published or under Minor Revision

* Supervised student co-author

Li, H., **Lam, H.** and Peng, Y., Efficient learning for clustering and optimizing context-dependent designs, *under minor revision in Operations Research*.

Zhu, Y., Dong, J. and **Lam, H.**, Efficient uncertainty quantification and exploration for reinforcement learning, *under minor revision in Operations Research*.

Lam, H., Zhang, X.* and Zhang, X.*, Enhanced balancing of bias-variance tradeoff in stochastic estimation: A minimax perspective, *to appear in Operations Research*.

Bai, Y.*, Huang, Z.*, **Lam, H.** and Zhao, D., Rare-event simulation for neural network and random forest predictors, *to appear in ACM Transactions on Modeling and Computer Simulation*.

Lam, H. and Li, F.*, General feasibility bounds for sample average approximation via Vapnik-Chervonenkis dimension, *to appear in SIAM Journal on Optimization*.

Lam, H. and Qian, H.*, Subsampling to enhance efficiency in input uncertainty quantification, *Operations Research*, Articles in Advance, 2021.

Peng, Y., Xiao, L., Heidergott, B., Hong, J. L. and **Lam, H.**, A new likelihood ratio method for training artificial neural networks, *INFORMS Journal on Computing*, Articles in Advance, 2021.

Bai, Y.*, Huang, Z.* and **Lam, H.**, Model calibration via distributionally robust optimization: On the NASA Langley Uncertainty Quantification Challenge, *Mechanical Systems and Signal Processing, Special Issue on the NASA Challenge*, **164** 108211, 1–19, 2021.

Lam, H., Li, H.* and Zhang, X.*, Minimax efficient finite-difference stochastic gradient estimators using black-box function evaluations, *Operations Research Letters*, **49**(1), 40–47, 2021.
[Spotlight paper in Operations Research Letters]

Hong, J. L., Huang, Z.* and **Lam, H.**, Learning-based robust optimization: Procedures and statistical guarantees, *Management Science*, **67**(6), 3447–3467, 2021.

Lam, H. and Li, F.*, Parametric scenario optimization under limited data: A distributionally robust optimization view, *ACM Transactions on Modeling and Computer Simulation*, **30**(4), 21:1–41, 2020.

Peng, Y., Fu, M. C., Heidergott, B. and **Lam, H.**, Maximum likelihood estimation by Monte Carlo simulation: Towards data-driven stochastic modeling, *Operations Research*, **68**(6), 1896–1912, 2020.

Pan, Q., Byon, E., Ko, Y. M. and **Lam, H.**, Adaptive importance sampling for extreme quantile estimation with stochastic black box computer models, *Naval Research Logistics*, **67**(7), 524–547, 2020.

Goeva, A.*, **Lam, H.**, Qian, H.* and Zhang, B., Optimization-based calibration of simulation input models, *Operations Research*, **67**(5), 1362–1382, 2019.

Lam, H., Recovering best statistical guarantees via the empirical divergence-based distributionally robust optimization, *Operations Research*, **67**(4), 1090–1105, 2019.
[**Second Prize, INFORMS JFIG Paper Competition 2016**]

Ghosh, S. and **Lam, H.**, Robust analysis in stochastic simulation: Computation and performance guarantees, *Operations Research*, **67**(1), 232–249, 2019.

Blanchet, J., **Lam, H.**, Tang, Q. and Yuan, Z., Robust actuarial risk analysis, *North American Actuarial Journal*, **23**(1), 33–63, 2019.

Heidergott, B., Berkhout, J., **Lam, H.** and Peng, Y., From data to stochastic modeling and decision making: What can we do better?, *Asia-Pacific Journal of Operational Research, Special Issue on Simulation Analytics*, 36(6), 2019.

Zhang, M., **Lam, H.** and Lin, L., Robust and parallel Bayesian model selection, *Journal of Computational Statistics and Data Analysis*, **127**, 229–247, 2018.

Huang, Z.*, Zhao, D.*, **Lam, H.**, and LeBlanc, D. J., Accelerated evaluation of automated vehicles using piecewise mixture models, *IEEE Transactions on Intelligent Transportation Systems*, **19**(9), 2845–2855, 2018.

Lam, H., Sensitivity to serial dependency of input processes: A robust approach, *Management Science*, **64**(3), 1311–1327, 2018.

Zhao, D.*, Huang, X., Peng, H., **Lam, H.**, and LeBlanc, D. J., Accelerated evaluation of automated vehicles in car-following maneuvers, *IEEE Transactions on Intelligent Transportation Systems*, **19**(3), 733–744, 2018.

Choe, Y., **Lam, H.** and Byon, E., Uncertainty quantification of stochastic simulation for black-box computer experiments, *Methodology and Computing in Applied Probability*, **20**(4), 1155–1172, 2018.
[**Selected for the Natrella Invited Section in the American Statistical Association (ASA) Quality & Productivity Research Conference 2015**]

Lam, H., and Mottet, C.*, Tail analysis without parametric models: A worst-case perspective, *Operations Research*, **65**(6), 1696-1711, 2017.

Lam, H. and Zhou, E., The empirical likelihood approach to quantifying uncertainty in sample average approximation, *Operations Research Letters*, **45**(4), 301–307, 2017.

Zhao, D.*, **Lam, H.**, Peng, H., Bao, S., LeBlanc, D. J., Nobukawa, K. and Pan, C. S., Accelerated evaluation of automated vehicles safety in lane change scenarios based on importance sampling techniques, *IEEE Transactions on Intelligent Transportation Systems*, **18**(3), 595–607, 2017.
[**UMTRI Transportation Safety Research Symposium Best Poster Award Second Place 2015**]

Lam, H., Robust sensitivity analysis for stochastic systems, *Mathematics of Operations Research*, **41**(4), 1248–1275, 2016.
[**INFORMS JFIG Paper Competition Finalist 2012**]

Blanchet, J., Chen, X., and **Lam, H.**, Two-parameter sample path large deviations for infinite server queues, *Stochastic Systems*, **4**(1), 206–249, 2014.

Blanchet, J., and **Lam, H.**, Rare-event simulation for many-server queues, *Mathematics of Operations Research*, **39**(4), 1142-1178, 2014.
[INFORMS George Nicholson Student Paper Competition Honorable Mention Prize 2010]

Bai, Q.*, **Lam, H.** and Sclaroff, S., A Bayesian framework for online classifier ensemble, *Journal of Machine Learning Research, W & CP (ICML)*, **32**, 1584–1592, 2014.

Brinton, C., Chiang, M., Jain, S., **Lam, H.**, Liu, Z., and Wong, F., Learning about social learning in MOOCS: from statistical analysis to generative model, *IEEE Transactions on Learning Technologies*, **7**(4), 346–359, 2014.

Blanchet, J., and **Lam, H.**, Uniform large deviations for heavy-tailed queues under heavy traffic, *Bulletin of the Mexican Mathematical Society, Bol. Soc. Mat. Mexicana*, **19**(3), Special Issue for the International Year of Statistics, 2013.

Chiang, M., **Lam, H.**, Liu, Z., and Poor, V., Why Steiner-tree type algorithms work for community detection, *Journal of Machine Learning Research, W & CP (AISTATS)*, **31**, 187-195, 2013.

Blanchet, J., and **Lam, H.**, A heavy traffic approach to modeling large life insurance portfolio, *Insurance Mathematics and Economics*, **53**(1), 237-251, 2013.

Blanchet, J., **Lam, H.**, and Zwart, B., Efficient rare-event simulation for perpetuities, *Stochastic Processes and Their Applications*, **122**(10), 3361–3392, 2012.

Yuen, W., Du, N., Shvartsman, D., Arany, P., **Lam, H.**, and Mooney, D., Statistical platform to discern spatial and temporal coordination of endothelial sprouting, *Integrated Biology*, **4**(3), 292-300. 2012.

Lam, H., Blanchet, J., Bazant, M. Z., and Burch, D., Corrections to the Central Limit Theorem for heavy-tailed probability densities, *Journal of Theoretical Probability*, **24**(4), 895-927, 2011.

Blanchet, J., Glynn, P., and **Lam, H.**, Rare-event simulation for a slotted time $M/G/s$ model, *Queueing Systems: Theory and Applications*, **63**, 33-57, 2009.

Articles under Review

Lam, H. and Qian, H.*, Optimization-based quantification of simulation input uncertainty via empirical likelihood, *under revision in Management Science*.

Plumlee, M. and **Lam, H.**, An uncertainty quantification method for inexact simulation models, *under revision in Operations Research*.

Mottet, C.* and **Lam, H.**, On optimization over tail distributions, *under revision in INFORMS Journal on Computing*.

Meisami, A.*, **Lam, H.**, Van Oyen, M., Stromblad, C., and Kastango, N., Quantile regression forests for individualized surgery scheduling, *under revision in Health Care Management Science*.

Lam, H. and Qian, H.*, Combating conservativeness in data-driven optimization under uncertainty: A solution path approach, *under revision in Management Science*.

Lam, H. and Qian, H.*, Bounding optimality gap in stochastic optimization via bagging: Statistical efficiency and stability.

Goutam, K.*, Goyal, V., and **Lam, H.**, Assortment optimization over dense universe is easy.

Blanchet J., **Lam, H.**, Liu, Y. and Wang, R., Convolution bounds on quantile aggregation.

He, S.*, Jiang, G., **Lam, H.** and Fu, M. C., Adaptive importance sampling for efficient stochastic root finding and quantile estimation, *under revision in Operations Research*.

Lam, H. and Zhang, J.*, Distributionally constrained black-box stochastic gradient estimation and optimization, *under revision in Operations Research*.
[**Finalist, INFORMS Undergraduate Operations Research Prize 2021**]

Song, E., **Lam, H.** and Barton, R., A shrinkage approach to improve direct bootstrap resampling under input uncertainty.

Lam, H., On the impossibility of statistically improving empirical optimization: A second-order stochastic dominance perspective.

Zeng, Y.* and **Lam, H.**, Generalization bounds with minimal dependency on hypothesis class via distributionally robust optimization.

He, S.* and **Lam, H.**, Higher-order expansion and Bartlett correctability of distributionally robust optimization.

Li, Y., Chan, C. K., Yau, C. Y., Ng, W. L. and **Lam, H.**, Burn-in selection in simulating time series.

Bai., Y.*, Huang, Z., **Lam, H.** and Zhao, D., Over-conservativeness of variance-based efficiency criteria and probabilistic efficiency in rare-event simulation.

Huang, Z., **Lam, H.** and Zhang, H.*, Quantifying epistemic uncertainty in deep learning.

Arief, M., Bai, Y.*, Ding, W., He, S.*, Huang, Z., **Lam, H.** and Zhao, D., Certifiable deep importance sampling for rare-event simulation of black-box systems.

Lam, H. and Zhang, H.*, Doubly robust Stein-kernelized Monte Carlo estimator: Simultaneous bias-variance reduction and supercanonical convergence.

He, S.* and **Lam, H.**, Higher-order coverage errors of batching methods via Edgeworth expansions on t-statistics.

Lam, H., Liu, Z.* and Zhang, X.*, Orthounimodal distributionally robust optimization: Representation, computation and multivariate extreme event applications.

Huang, Z., **Lam, H.**, Meisami, A. and Zhang, H.*, Generalized Bayesian upper confidence bound with approximate inference for bandit problems.

Lam, H., A cheap bootstrap method for fast inference.

Bai, Y.*, **Lam, H.**, Vyetrenko, S. and Balch, T., Efficient calibration of multi-agent simulation models from output series with Bayesian optimization.

Xu, M., Huang, P., Li, F.*, Zhu, J., Qi, X., Oguchi, K., Huang, Z., **Lam, H.** and Zhao, D., Scalable safety-critical policy evaluation with accelerated rare event sampling.

Dolan, E., Johnson, N., Kepler, T., **Lam, H.**, Lelo de Larrea, E.*, Mohammadi, S., Olivier, A., Quayyum, A., Sanabria, E.*, Sethuraman, J., Smyth, A. and Thomson, K., Hospital load balancing: A data-driven approach to optimize ambulance transports during the COVID-19 pandemic in New York City.
[**Finalist, INFORMS Doing Good with Good OR Competition 2021**]

Lam, H. and Zhang, H.*, Prediction intervals for simulation metamodeling.

Arief, M., Cen, Z., Liu, Z.*, Huang, Z., **Lam, H.**, Li, B. and Zhao, D., Test against high-dimensional uncertainties: Accelerated evaluation of autonomous vehicles with deep importance sampling.

Refereed Conference Publications

He, S.* and **Lam, H.**, Higher-order coverage error analysis for batching and sectioning, *Proceedings of the Winter Simulation Conference (WSC)*, 2021.
[WSC PhD Colloquium INFORMS I-SIM Award 2021]

Lelo de Larrea, E.*, Dolan, E. M., Johnson, N. E., Kepler, T. R., **Lam, H.**, Mohammadi, S., Olivier, A., Quayyum, A., Sanabria, E.*, Sethuraman, J., Smyth, A. W., Thomson, K. S., Simulating New York City hospital load balancing during COVID-19, *Proceedings of the Winter Simulation Conference (WSC)*, 2021.

Lam, H. and Zhang, H.*, Neural predictive intervals for simulation metamodeling, *Proceedings of the Winter Simulation Conference (WSC)*, 2021.

Sanabria, E.*, **Lam, H.**, Lelo de Larrea, E.*, Sethuraman, J., Dolan, E. M., Johnson, N. E., Kepler, T. R., Mohammadi, S., Olivier, A., Quayyum, A., Smyth, A. W., Thomson, K.S., Short-term adaptive emergency call volume prediction, *Proceedings of the Winter Simulation Conference (WSC)*, 2021.

Arief, M., Huang, Z.*, Kumar, G. K. S., Bai, Y.*, He, S.*, Ding, W., **Lam, H.** and Zhao, D., Deep Probabilistic Accelerated Evaluation: A robust certifiable rare-event simulation methodology for black-box safety-critical systems, *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2021.

Chen, H.*, Huang, Z., **Lam, H.**, Qian, H.* and Zhang, H.*, Learning prediction intervals for regression: Generalization and calibration, *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2021.

Bai, Y.*, Huang, Z.* and **Lam, H.**, A distributionally robust optimization approach to the NASA Langley Uncertainty Quantification Challenge, *Proceedings of the European Safety and Reliability Conference and the Probabilistic Safety Assessment and Management Conference*, 2020.

Li, H.* and **Lam, H.**, Optimally tuning finite-difference estimators, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.

Li, H.*, **Lam, H.**, Liang, Z. and Peng, Y., Context-dependent ranking and selection under a Bayesian framework, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.
[Finalist, Best Theoretical Paper, Winter Simulation Conference 2020]

Bai, Y.* and **Lam, H.**, On the error of naive Monte Carlo rare-event estimators, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.

Bai, Y.* and **Lam, H.**, Calibrating input parameters via eligibility sets, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.

Singham, D. and **Lam, H.**, Sample average approximation with functional decisions under shape constraints, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.

Lam, H. and Zhang, J.*, Distributionally constrained stochastic gradient estimators using noisy function evaluations, *Proceedings of the Winter Simulation Conference (WSC)*, 2020.

Chen, H.*, **Lam, H.**, Li, F.* and Meisami, A., Constrained reinforcement learning via policy splitting, *Asian Conference on Machine Learning (ACML), PMLR*, 2020.

Lam, H., Li, F.* and Prusty, S.*, Robust importance weighting for covariate shift, *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2020.

Huang, Z.*, Arief, M., **Lam, H.** and Zhao, D., Evaluation uncertainty in data-driven self-driving testing, *IEEE Intelligent Transportation Systems Conference (ITSC)*, 2019.

Huang, Z.* and **Lam, H.**, On the impacts of tail model uncertainty in rare-event estimation, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.

Lam, H. and Zhang, H.*, On the stability of kernelized control functionals on partial and biased stochastic inputs, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.

Lam, H. and Zhang, X.*, Minimax efficient finite-difference gradient estimation, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.

Lam, H. and Qian, H.*, Random perturbation and bagging to quantify input uncertainty, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.

Lam, H. and Qian, H.*, Validating optimization with uncertain constraints, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.

Luo, Q., Huang, Z.* and **Lam, H.**, Dynamic congestion pricing for ridesourcing traffic: A simulation optimization approach, *Proceedings of the Winter Simulation Conference (WSC)*, 2019.
[**WSC PhD Colloquium INFORMS I-SIM Award 2019**]

Huang, Z.*, Arief, M., **Lam, H.** and Zhao, D., Synthesis of different autonomous vehicles test approaches, *IEEE International Conference on Intelligent Transportation Systems (ITSC)*, 2018.

Meisami, A.*, **Lam, H.**, Dong, C. and Pani, A., Sequential learning under probabilistic constraints, *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2018.

Glynn, P. W. and **Lam, H.**, Constructing simulation output intervals under input uncertainty via data sectioning, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Lam, H. and Qian, H.*, Subsampling variance for input uncertainty quantification, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Lam, H. and Li, F.*, Sampling uncertain constraints under parametric distributions, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.
[**Best Theoretical Paper, Winter Simulation Conference 2018**]

Lam, H. and Qian, H.*, Assessing solution quality in stochastic optimization via bootstrap aggregating, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Duplay, T.*, **Lam, H.** and Zhang, X.*, Achieving optimal bias-variance tradeoff in online derivative estimation, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Huang, Z.*, **Lam, H.** and Zhao, D., Designing importance samplers to simulate machine learning predictors via optimization, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Huang, Z.*, **Lam, H.** and Zhao, D., Rare-event simulation without structural information: A learning-based approach, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Lam, H., Jiang, G. and Fu, M., On efficiencies of stochastic optimization procedures under importance sampling, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Barton, R., **Lam, H.** and Song, E., Revisiting direct bootstrap resampling for input model uncertainty, *Proceedings of the Winter Simulation Conference (WSC)*, 2018.

Pan, Q., Byon, E. and **Lam, H.**, Variance reduction method for extreme quantile estimation, *Institute of Industrial and Systems Engineers (IISE) Annual Conference*, 2018.

Huang, Z.*, Guo, Y., Zhao, D.* and **Lam, H.**, A versatile approach for the evaluation and testing of automated vehicles based on kernel methods, *American Control Conference (ACC)*, 2018.

Meisami, A.*, **Lam, H.**, and Van Oyen, M., Uncertainty quantification on simulation analysis driven by random forests, *Proceedings of the Winter Simulation Conference (WSC)*, 2017.

Huang, Z.*, **Lam, H.**, and Zhao, D.*, Sequential experimentation to evaluate automated vehicles, *Proceedings of the Winter Simulation Conference (WSC)*, 2017.

Blanchet, J., He, F., and **Lam, H.**, Computing worst-case expectations given marginals via simulation, *Proceedings of the Winter Simulation Conference (WSC)*, 2017.

Lam, H., Plumlee, M., and Zhang, X.*, Improving prediction from stochastic simulation via model discrepancy learning, *Proceedings of the Winter Simulation Conference (WSC)*, 2017.

Huang, Z.*, Zhao, D.*, and **Lam, H.**, Towards affordable on-track testing for autonomous vehicle - A kriging-based statistical approach, *Proceedings of the IEEE International Conference on Intelligent Transportation Systems (ITSC)*, 2017.

Huang, Z.*, **Lam, H.**, and Zhao, D.*, An accelerated testing approach for automated vehicles with background traffic described by joint distributions, *Proceedings of the IEEE International Conference on Intelligent Transportation Systems (ITSC)*, 2017.

Huang, Z.*, Zhao, D.*, **Lam, H.**, LeBlanc, D. J., and Peng H., Evaluation of automated vehicles in the frontal cut-in scenario - An enhanced approach using piecewise mixture model, *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, 2017.

Lam, H. and Qian, H.*, The empirical likelihood approach to simulation input uncertainty, *Proceedings of the Winter Simulation Conference (WSC)*, 2016.

Hong, J. L., Huang, Z.* and **Lam, H.**, Approximating data-driven joint chance-constrained programs via uncertainty set construction, *Proceedings of the Winter Simulation Conference (WSC)*, 2016.
[**Finalist, Best Theoretical Paper, Winter Simulation Conference 2016**]

Plumlee, M. and **Lam, H.**, Learning stochastic model discrepancy, *Proceedings of the Winter Simulation Conference (WSC)*, 2016.

Lam, H. and Zhou, E., Quantifying uncertainty in sample average approximation, *Proceedings of the Winter Simulation Conference (WSC)*, 2015.

Ghosh, S. and **Lam, H.**, Mirror descent stochastic approximation for computing worst-case stochastic input models, *Proceedings of the Winter Simulation Conference (WSC)*, 2015.

Hong, J. L. and **Lam, H.**, A statistical perspective on linear programs with uncertain parameters, *Proceedings of the Winter Simulation Conference (WSC)*, 2015.

Lam, H. and Mottet, C.*, Simulating tail events with unspecified tail models, *Proceedings of the Winter Simulation Conference (WSC)*, 2015.

Zhao, D.*, Peng, H., **Lam, H.**, Bao, S., Nobukawa, K., LeBlanc, D. J. and Pan, C. S., Accelerated evaluation of automated vehicles in lane change scenarios, *Proceedings of the ASME Dynamic Systems and Control Conference*, 2015.

Goeva, A.*, **Lam, H.** and Zhang, B., Reconstructing input model via simulation optimization, *Proceedings of the Winter Simulation Conference (WSC)*, 2014.

Blanchet, J., Dolan, C. and **Lam, H.**, Robust rare-event performance analysis with natural non-convex constraints, *Proceedings of the Winter Simulation Conference (WSC)*, 2014.

Lam, H. and Ghosh, S., Iterative method for robust estimation under bivariate uncertainty, *Proceedings of the Winter Simulation Conference (WSC)*, 2013.

Lam, H., Efficient importance sampling under partial information, *Proceedings of the Winter Simulation Conference (WSC)*, 41–53, 2012.

Chung, K. M., **Lam, H.**, Liu, Z., and Mitzenmacher, M., Chernoff-Hoeffding bounds for finite Markov chains: generalized and simplified, *Proceedings of the Symposium on Theoretical Aspects of Computer Science (STACS)*, 2012.

Lam, H., Liu, Z., Mitzenmacher, M., Sun, X., and Wang, Y., Information dissemination via random walks in d-dimensional space, *Proceedings of the ACM-SIAM Symposium on Discrete Algorithms (SODA)*, 1612–1622, 2012.

Lam, H., Exact asymptotics for infinite-server queues, *ACM Proceedings of the 6th International Conference on Queueing Theory and Network Applications*, 101–106, 2011.

Blanchet, J. and **Lam, H.**, Importance sampling for actuarial cost analysis under a heavy traffic model, *Proceedings of the Winter Simulation Conference (WSC)*, 3817–3828, 2011.

Survey Articles

Barton, R., **Lam, H.** and Song, E., Input uncertainty in stochastic simulation, Chapter 17, *The Palgrave Handbook of Operations Research*, 2022.

Lam, H., Advanced tutorial: Input uncertainty and robust analysis in stochastic simulation, *Invited Tutorial, Winter Simulation Conference (WSC)*, 2016.

Blanchet, J. and **Lam, H.**, State-dependent importance sampling for rare-event simulation: Recent advances, *Surveys in Operations Research and Management Science*, **17**(1), 38-59, 2012.

Blanchet, J., and **Lam, H.**, Rare-event simulation techniques, *Advanced Tutorial, Proceedings of the Winter Simulation Conference (WSC)*, 2011.

Other Publications

Xu, M., Huang, P., Kumar, V., Qiu, J., Chao, F., Lee, K., Qi, X., **Lam, H.**, Li, B., Zhao, D., Group distributionally robust reinforcement learning, *accepted in Fresh Perspectives on the Future of Autonomous Driving workshop, ICRA*, 2022.

Bai, Y., **Lam, H.** and Vyetrenko, S., Efficient calibration of multi-agent market simulators from time series with Bayesian optimization, *NeurIPS Workshop on Optimization for Machine Learning*, 2021.

Xu, M., Huang, P., Li, F.*, Zhu, J., Qi, X., Huang, Z.*, **Lam, H.** and Zhao, D., Accelerated policy evaluation with adaptive importance sampling, *ICLR Workshop on Security and Safety in Machine Learning Systems*, 2021.

Zhao, D.*, Peng, H., **Lam, H.**, LeBlanc, D. J., Accelerated evaluation of automated vehicles, *5th ASME Symposium on Verification and Validation in Computational Modeling and Simulation*, 2016.

Lam, H. and Zhang, B., Machine teaching via simulation optimization, *NIPS Workshop on Machine Learning from and for Adaptive User Technologies: From Active Learning and Experimentation to Optimization and Personalization*, 2015.

Lam, H., *Efficient Monte-Carlo Methods and Asymptotic Analysis for Stochastic Systems*, Ph.D. Dissertation, Harvard University, 2011.

Services

Editorial:

Associate Editor, *Operations Research*, 2015–

Associate Editor, *INFORMS Journal on Computing*, 2016–

Editorial Board, *Stochastic Models*, 2019–

Editorial Board, *Journal of Applied Probability / Advances in Applied Probability*, 2020–

Associate Editor, *Manufacturing and Service Operations Management*, 2021–

Associate Editor, *Operations Research Letters*, 2021

Associate Editor, *Queueing Systems*, 2022–

Area Editor, Stochastic Models and Data Science, *Operations Research Letters*, 2022–

Referee for: *American Control Conference, ACM Transactions on Modeling and Computer Simulation, Annals of Applied Probability, Annals of Operations Research, Annals of Statistics, Applied Mathematics Letters, Applied Stochastic Models in Business and Industry, Bernoulli, Communications in Mathematical Sciences, Computational Management Science, Entropy, Electronic Journal of Statistics, European Journal of Operations Research, Extremes, IEEE Transactions on Automatic Control, International Conference on Learning Representations, INFORMS Journal on Computing, Journal of Applied Probability, Journal of Applied Statistics, Journal of Simulation, Journal of Theoretical Probability, Mathematical Programming, Management Science, Mathematics of Operations Research, Neural Information Processing Systems, North American Actuarial Journal, Operations Research, Performance Evaluation, PLOS, Proceedings of the Royal Society A, Queueing Systems, SIAM Journal on Control and Optimization, SIAM Journal on Mathematics of Data Science, SIAM Review, Simulation Modelling Practice and Theory, Statistica Sinica, Stochastic Models, Stochastic Processes and Their Applications, Stochastic Systems.*

Services to professional organizations:

INFORMS Simulation Society Recruiting and Retention Committee, 2016–2018.

INFORMS Applied Probability Society Council Member 2017–2019.

INFORMS Simulation Society Council Member 2019–2021.

New England Statistical Society Council Member 2021–.

Prize committees:

INFORMS Junior Faculty Interest Group (JFIG) Best Paper Prize Judge 2019, 2020.

Winter Simulation Conference Best Theoretical Paper Prize Committee 2019.

INFORMS Applied Probability Society (APS) Best Student Paper Prize Judge, 2020, 2021.

INFORMS George Nicholson Best Student Paper Competition Judge, 2021, 2022.

Conference organization:

Organizing Committee, New England Statistics Symposium 2012.

Session Chair, Applied Probability Society Conference 2013, 2017, 2019.

Session Chair, INFORMS Annual Meeting 2013–2017.

Program Committee, Winter Simulation Conference (Analysis Methodology Track) 2015, 2016, 2018, 2020, 2021, 2022.

Program Committee, Winter Simulation Conference (Simulation Optimization Track) 2016, 2017, 2018, 2020, 2021.

Program Committee, Winter Simulation Conference (Model Uncertainty and Robust Simulation Track) 2020, 2021.

Co-Chair, INFORMS Annual Meeting Applied Probability Cluster 2018.

Track Co-Chair, Winter Simulation Conference (Uncertainty Quantification and Robust Simulation) 2019.

Organizing Committee, I-SIM Workshop 2021.

Workshop & Tutorial Advisory Committee, ACM International Conference on AI in Finance, 2021.

Program Committee, ACM International Conference on AI in Finance, 2021.

Program Committee, New England Statistics Symposium, 2022.

Grant proposal review:

National Science Foundation (NSF) Peer Review Panel, 2015, 2020.

National Science Foundation (NSF) Ad Hoc Reviewer, 2017.

Department of Energy (DOE) Ad Hoc Reviewer, 2019.

Office of Naval Research (ONR) Ad Hoc Reviewer, 2020.

Natural Sciences and Engineering Research Council of Canada (NSERC) External Reviewer, 2016.

Research Grants Council of Hong Kong, External Reviewer, 2019, 2020, 2022.

University and department services:

Co-Organizer, BU Probability and Statistics Seminar Series, 2011–2012, 2012–2013, 2013–2014.

Graduate Admission Committee, BU Statistics Program, 2011–2012.

Organizing Committee, BU Center for Information & Systems Engineering Seminar Series, Fall 2014.

Faculty adviser, UM Tauber Institute Team Project "Simulation of Material Handling Operations for Labor Requirements Calculation", 2015. (student team won Best Presentation Award Third Place)

Graduate Program Committee, UM IOE Department, 2015–2016.

Graduate Admission and Financial Aids Committee, UM IOE Department, 2015–2016.

Wilson Prize Committee, UM IOE Department, 2015–2016.

Organizer, UM IOE Seminar Series, Winter 2017.

Co-Organizer, Applied Probability and Risk Seminar Series, Columbia University, 2017–2021.

Actuarial Science Academic Committee, Department of Statistics, Columbia University, 2018–2020.

Graduate Admission Committee, Columbia IEOR, 2018, 2019, 2020, 2021.

Ph.D. Admission Chair, Columbia IEOR, 2020, 2021, 2022.

Invited Talks

Tutorial:

Western Swiss Doctoral School in Statistics and Probability, Switzerland, 9/2021.

Invited tutorial on emerging topics, I-SIM Workshop, 6/2021 (virtual).

APS invited tutorial lecture, INFORMS Annual Meeting, 11/2020 (virtual).

Peking University Summer School on Applied Mathematics, 7/2019.

Invited tutorial, Winter Simulation Conference (WSC) 12/2016.

Department seminars:

Applied Probability Seminar, Columbia University, NY, 12/2021.

School of Operations Research and Information Engineering, Cornell University, NY, 11/2021.

Decision, Operations & Information Technologies Seminar, University of Maryland Robert H. Smith School of Business, MD, 3/2021 (virtual talk).

Computational Mathematics Seminar, University of Waterloo, Canada, 2/2020.

Center for Information and Systems Engineering, Boston University, MA, 11/2019.

Applied Mathematics Colloquium, Columbia University, NY, 9/2019.

School of Risk and Actuarial Studies, University of New South Wales, Sydney, Australia, 7/2019.

Operations Research and Industrial Engineering Seminar, Department of Mechanical Engineering, University of Texas at Austin, TX, 3/2019.

Department of Industrial Engineering and Management, Oklahoma State University, Stillwater, OK, 11/2018.

Department of Industrial and Systems Engineering, University of Minnesota, Twin Cities, MN, 10/2018.

Department of Industrial and Systems Engineering, Lehigh University, Bethlehem, PA 5/2018.

Department of Mathematics and Statistics, Boston University, Boston, MA 4/2018.

IBM Research AI, Yorktown Heights, NY, 4/2018.

Department of Industrial and Manufacturing Engineering, Penn State University, University Park, PA 3/2018.

RIKEN Center for Advanced Intelligence Project, Tokyo, Japan 11/2017.

Operations Management Seminar, University of Southern California, Los Angeles, CA 11/2017.

Applied Probability and Risk Seminar, Columbia University, New York, NY, 9/2017.

Department of Computer Science, College of William and Mary, Williamsburg, VA, 4/2017.

Department of Statistical Sciences and Operations Research, Virginia Commonwealth University, Richmond, VA, 3/2017.

Department of Decision Sciences and Managerial Economics, Chinese University of Hong Kong, Hong Kong, 12/2016.

Applied Probability and Risk Seminar, Columbia University, 11/2016.

School of Business, University of Hong Kong, Hong Kong, 8/2016.

Department of Management Science, City University of Hong Kong, Hong Kong, 8/2016.

Department of Mathematics and Statistics, University of Massachusetts, Amherst, MA, 4/2016.

Department of Industrial Engineering and Management Sciences, Northwestern University, IL, 3/2016.

H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, GA, 9/2015.

Operations Research Team Seminar, General Motors Global R & D, Warren, MI, 5/2015.

Department of Statistics, Purdue University, IN, 2/2015.

IBM Research, Yorktown Heights, NY, 5/2014.

Department of Risk Management and Insurance, Georgia State University, GA, 12/2013.

Machine Learning Seminar, Department of Electrical and Computer Engineering, Boston University, MA, 10/2013.

Department of Statistics and Actuarial Science, The University of Hong Kong, Hong Kong, 12/2012.

Department of Mathematics, Penn State University, PA, 11/2012.

IBM Research, Yorktown Heights, NY, 8/2012.

Department of Statistics, The Chinese University of Hong Kong, Hong Kong, 12/2011.

Invited talks in specialized workshops:

Stochastic Networks, Applied Probability, and Performance (SNAPP) Seminar, 2/2022 (virtual).

I-SIM Workshop, 6/2021 (virtual).

International Workshop on Rare Event Simulation, 5/2021 (virtual).

Workshop on Mathematical Optimization of Systems Impacted by Rare, High-Impact Random Events, The Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University, Providence, RI, 6/2019.

International Workshop on Rare Event Simulation, Stockholm, Sweden, 8/2018 (one-hour talk).

BIRS-CMO Workshop on Self-Similarity, Long-Range Dependence and Extremes, Oaxaca, Mexico, 6/2018.

Quantitative Risk Management & Financial Analytics Workshop, University of Ottawa, Ottawa, ON, Canada, 5/2018 (one-hour talk).

American Mathematical Society Northeast Sectional Meeting, Special Session on Optimization under Uncertainty, Boston, MA, 4/2018.

BIRS Workshop on Distributionally Robust Optimization, The Banff Centre, Canada, 3/2018.

International Conference of the ERCIM WG on Computational and Methodological Statistics, University of London, U.K., 12/2017.

INFORMS Simulation Society Research Workshop, University of Durham, Durham, U.K., 7/2017 (one-hour talk).

International Conference on Extreme Value Analysis, Delft University of Technology, Delft, The Netherlands, 6/2017.

Mostly OM Workshop, Tsinghua University, 5/2016 (one-hour talk).

American Mathematical Society Fall Southeastern Sectional Meeting, Special Session on Recent Advances in Stochastic Processes and Stochastic Computation, Raleigh, NC, 11/2016.

Workshop on Uncertainty Quantification for Multiscale Stochastic Systems and Applications, Institute for Pure and Applied Mathematics, University of California, Los Angeles, CA, 1/2016 (one-hour talk).

Workshop on Robust Optimization in Applied Probability, EURANDOM, the Netherlands, 11/2015.

ISIM Workshop: At the Interface of Simulation and Optimization, Purdue University, IN, 7/2015.

BIRS Workshop on Applied Probability Frontiers: Computational and Modeling Challenges, The Banff Centre, Canada, 5/2015 (one-hour talk).

BU/Keio Workshop on Probability and Statistics, Boston, MA, 9/2013 (one-hour talk).

Workshop on Computational Methods in Applied Sciences, Department of Statistics, Columbia University, NY, 12/2012.

SAMSI Rare-Event Simulation Workshop, Research Triangle Park, NC, 3/2012 (one-hour talk).

Stochastic Networks Conference, Issac Newton Institute, University of Cambridge, U.K., 6/2010.

Invited talks in major conferences:

Joint Statistical Meetings, 8/2021 (virtual).

SIAM Conference on Optimization, 7/2021 (virtual).

SIAM Conference on Computational Science and Engineering, 3/2021 (virtual).

Winter Simulation Conference, National Harbor, MD, 12/2019.

INFORMS Annual Meeting, Seattle, WA, 10/2019.

International Conference on Continuous Optimization, Berlin, Germany, 8/2019.

International Conference on Monte Carlo Methods and Applications, Sydney, Australia, 7/2019.

Applied Probability Society Conference, Brisbane, Australia, 7/2019.

Winter Simulation Conference, Gothenburg, Sweden, 12/2018.

INFORMS Annual Meeting, Phoenix, AZ, 11/2018.

International Symposium on Mathematical Programming, Bordeaux, France, 7/2018.

Winter Simulation Conference, Las Vegas, NV, 12/2017.

INFORMS Annual Meeting, Houston, TX, 10/2017.

Winter Simulation Conference, Washington D.C., 12/2016.

INFORMS Annual Meeting, Nashville, TN, 11/2016.

International Conference on Continuous Optimization, Tokyo, Japan, 8/2016.

International Workshop on Applied Probability, Toronto, Canada, 6/2016.

INFORMS International Conference, Waikoloa, HI, 6/2016.

INFORMS Optimization Society Conference, Princeton, NJ, 3/2016.

Winter Simulation Conference, Huntington Beach, CA, 12/2015.

INFORMS Annual Meeting, Philadelphia, PA, 11/2015.

The Annual International Conference of the German Operations Research Society, Vienna, Austria, 9/2015.

International Symposium on Mathematical Programming, Pittsburgh, PA, 7/2015.

INFORMS Computing Society Conference, Richmond, VA, 1/2015.

Winter Simulation Conference, Savannah, GA, 12/2014.

INFORMS Annual Meeting, San Francisco, CA, 11/2014.

New England Statistics Symposium, Harvard School of Public Health, MA, 4/2014.

SIAM Conference on Uncertainty Quantification, Atlanta, GA, 3/2014.

Winter Simulation Conference, Washington D.C., 12/2013.

INFORMS Annual Meeting, Minneapolis, MN, 10/2013.

Applied Probability Society Conference, San Jose, Costa Rica, 7/2013.

New England Statistics Symposium, University of Connecticut, CT, 4/2013.

Winter Simulation Conference, Berlin, Germany, 12/2012.

INFORMS Annual Meeting, Phoenix, AZ, 10/2012.

Winter Simulation Conference, Phoenix, AZ, 12/2011.

INFORMS Annual Meeting, Charlotte, NC, 10/2011.

INFORMS Annual Meeting, Austin, TX, 10/2010.

INFORMS Annual Meeting, San Diego, CA, 10/2009.

Applied Probability Society Conference, Ithaca, NY, 7/2009.

INFORMS Annual Meeting, Washington D.C., 10/2008.

Others:

Student Seminar, Department of Statistics, Columbia University, NY, 2/2022 (invited talk).

Student Seminar, Department of Statistics, Columbia University, NY, 10/2013 (invited talk).

Second Cambridge Area Economics and Computation Day, MIT, Cambridge, MA, 5/2013 (contributed talk with selection).

Winter Simulation Conference, Austin, TX, 12/2009 (invited talk in the Ph.D. Colloquium).

Northeast Probability Seminar, New York, NY, 11/2009 (contributed short talk).

Department of Mathematics, University of Wisconsin, Madison, WI, 6/2009 (contributed talk).

DRO Student Seminar, Columbia Business School, New York, NY, 10/2008 (invited talk).

Teaching Experience

Columbia University, New York

Instructor, IEOR 6711: Stochastics I — Fall 2019, 2020
Instructor, IEOR 4100/4101: Probability, Statistics and Simulation — Fall 2017, 2018, 2019, 2020
Instructor, IEOR 4102: Stochastic Modeling for Management Science and Engineering — Spring 2019
Instructor, IEOR 8100: Statistical Methods for Simulation and Optimization under Uncertainty — Spring 2019
Instructor, IEOR 3404: Simulation Modeling and Analysis — Spring 2018

University of Michigan, Ann Arbor, Michigan

Instructor, IOE 574: Advanced Simulation Analysis — Winter 2016, 2017
Instructor, IOE 474: Simulation Analysis — Fall 2015, 2016

Boston University, Boston, Massachusetts

Instructor, MA 570: Stochastic Methods in Operations Research — Spring 2014
Instructor, MA 115: Statistics I — Fall 2014
Instructor, MA 569: Optimization Methods in Operations Research — Fall 2011–2013
Instructor, MA 116: Statistics II — Spring 2012, 2013
Instructor, MA 881: Graduate Seminar in Applied Probability — Fall 2011

Harvard University, Cambridge, Massachusetts

Teaching Fellow, STAT 139/239: Linear Models — Fall 2007
Teaching Fellow, STAT 171: Stochastic Processes — Spring 2007
Teaching Fellow, STAT 104: Introduction to Quantitative Methods — Fall 2006

Student Mentoring

PhD students with primary advising role:

Alexandrina Goeva (BU Math & Stat), co-advised with Eric Kolaczyk, graduated in 4/2017. First position: Post-doc, Broad Institute of MIT and Harvard.

Clementine Mottet (BU Math & Stat), graduated in 12/2017. First position: TripAdvisor.

Amirhossein Meisami (UM IOE), co-advised with Mark Van Oyen, graduated in 4/2018. First position: Adobe.

Zhiyuan Huang (UM IOE), graduated in 4/2020. First position: Post-doc, Carnegie Mellon University.

Huajie (Jason) Qian (Columbia IEOR), graduated in 5/2020. First position: Alibaba.

Kumar Goutam (Columbia IEOR), co-advised with Vineet Goyal, graduated in 7/2020. First position: Amazon.

Fengpei Li (Columbia IEOR), co-advised with Jose Blanchet, graduated in 3/2021. First position: Morgan Stanley.

Xinyu Zhang (Columbia IEOR), graduated in 12/2021. First position: Goldman Sachs.

Yuanlu Bai (Columbia IEOR), 2019–

Haofeng Zhang (Columbia IEOR), 2019–

Yibo Zeng (Columbia IEOR), 2020–

Shengyi He (Columbia IEOR), 2020–

Zhenyuan Liu (Columbia IEOR), 2020–

Zitong Wang (Columbia IEOR), 2021–

PhD Students to whom significant guidance was provided:

Elioth Sanabria (Columbia IEOR), expected graduation 5/2022.

Enrique Lelo de Larrea (Columbia IEOR), graduated in 7/2021.

Ding Zhao (UM Mechanical Engineering), graduated in 3/2016.

Qinxun (Jerry) Bai (BU Computer Science), graduated in 10/2016.

On thesis defense committee:

Yixi Shi (Columbia IEOR), External Reader 2/2012

Dan Ren (BU Math & Stat), on Thesis Committee 4/2013

John Zhang (Columbia IEOR), External Reader 8/2013

Wes Viles (BU Math & Stat), on Thesis Committee 9/2013

Chong Liu (BU Math & Stat), Thesis Committee Chair 1/2014

Wuyang Dai (BU ECE), on Thesis Committee 11/2014

Jing Qian (BU ECE), on Thesis Committee 8/2014

Ali Sanjari (BU Math & Stat), on Thesis Committee 11/2015

Zhihao Chen (UM IOE), on Thesis Committee 2/2016

Helin Zhu (Gatech ISyE), External Reader 7/2016

Selin Merdan (UM IOE), on Thesis Committee 3/2018

Yanan Pei (Columbia IEOR), on Thesis Committee 7/2018

Fei He (Columbia IEOR), on Thesis Committee 9/2018

Ni Ma (Columbia IEOR), on Thesis Committee 12/2018

Zhipeng Liu (Columbia IEOR), on Thesis Committee 2/2019

Xiaopei Zhang (Columbia IEOR), on Thesis Committee 4/2019

Qiyun Pan (UM IOE), on Thesis Committee 5/2019

Wei You (Columbia IEOR), on Thesis Committee 5/2019

Ryan McNellis (Columbia IEOR), on Thesis Committee 12/2019

Chaoxu Zhou (Columbia IEOR), on Thesis Committee 1/2020

Lin Chen (Columbia IEOR), on Thesis Committee 3/2020

Enrique Lelo de Larrea (Columbia IEOR), on Thesis Committee 7/2021

Jinsheng Chen (Columbia IEOR), on Thesis Committee (expected graduation date 5/2022)

On UM IOE preliminary exam committee:

Weidong Chen, Yuanyuan Gao, Hao Yuan, Donald Richardson, Armando Bernal, Qiyun Pan

Undergraduate students:

Nicolas Kim (B.A. Mathematics, BU), Honors thesis advising 2013. Position after graduation: Ph.D. student in statistics at Carnegie Mellon University.

Guy Aridor (B.A. Economics, Mathematics and Computer Science, BU), UROP, joint with Rafik B. Hariri Institute for Computing Summer Research Award 2013. Position after graduation: Ph.D. student in economics at Columbia University.

Yanzhe Jin (B.S. IOE, UM). Position after graduation: Goldman Sachs.

Shangzhou (Shawn) Xia (B.S. IEOR, Columbia). Position after graduation: Ph.D. student in Decision, Risk and Operations, Columbia Business School.

Junhui Zhang (B.S. Applied Math, Columbia). Position after graduation: Ph.D. student in Operations Research, MIT.

Alex Paskov (B.S. Applied Math, Columbia). Position after graduation: Ph.D. student in Operations Research, MIT.

Masters students:

Ziwei Cao (UM Stat), Liwei Wang (Columbia Stat), Linyun He (Columbia Stat), Zexing Xu (Columbia Stat), Ivan Lin (Columbia OR), Thibault Duplay (Columbia OR), Yuanyuan Lei (Columbia Stat), Chenghuai Li (Columbia FE), Keliang Wang (Columbia OR), Nattapon Wongrattanawichit (Columbia OR), Yusong Wang (Columbia FE), Xinyu Li (Columbia FE), Linjun Huang (Columbia Stat), Haoxian Chen (Columbia FE), Zonglin Lyu (Columbia OR), Ruofei Ma (Columbia OR), Alice Chen (Columbia FE).

Visiting students:

Xuhui Zhang (Undergraduate student, University of Science and Technology of China).

Brice Flamencourt (Undergraduate student, Ecole Nationale des Ponts et Chaussees, France).

Haidong Li (PhD student, Peking University, China).

Industry Experience

Citigroup Global Markets and Banking, Hong Kong Summer Quantitative Analyst, Equity Derivatives Trading	July – August 2009
Lehman Brothers, Hong Kong Summer Senior Associate, Equity Derivatives Sales	June – August 2008
Hewitt Associate LLC, Hong Kong Summer Consultant	June – July 2005
Standard Chartered Bank, Hong Kong Quantitative Analyst	Summer 2001 – 2003

Professional Qualifications

Passed Society of Actuaries Exam P, FM, MFE, MLC and C.