— Qingshuo SONG —

- — Contact Information —

  – Department of Mathematical Sciences, Worcester Polytechnic Institute
  – Tel: 1-508-831-6273
  – E-mail: qsong@wpi.edu
  – Webpage: https://www.wpi.edu/people/faculty/qsong

- — Employment —
  – Department of Mathematical Sciences, Worcester Polytechnic Institute
  Associate Professor , Jan 2019 - current
  – Department of Mathematics, City University of Hong Kong
  Associate Professor (Tenured), July 2015 - Dec 2018
  Assistant Professor, January 2010 - June 2015
  – Department of Mathematics, University of Michigan
  Term Assistant Professor, August 2009 - December 2009
  – Department of Mathematics, University of Southern California
  Non-tenure-track Assistant Professor, August 2006 - July 2009
- — Research —
  – Stochastic control, Probability, Mathematical finance.
- — Education —
  – Wayne State University, Michigan
  Ph.D., Mathematics, August 2006; Advisors: George Yin and Zhimin Zhang
  M.A., Mathematical Statistics, December,2005
  – Nankai University, Tianjin, China
  M.A., Computer Science, July, 1999
  B.S., Automatic Control and Systems Theory, July, 1996
- — Editorial Boards —
  – Associate Editor, *IEEE Control Systems Letters*, 2017 - present
  – Associate Editor, *SIAM Regular Papers for IEEE CDC*, 2017 - present
  – Associate Editor, *Nonlinear Analysis: Hybrid Systems*, 2016- present
  – Associate Editor, *Control Theory and Technology*, 2015 - present
  – Editorial Board Member, SIAM conference on control and applications 2015 - present
  – Associate Editor, Conference Editorial Board, IEEE Control System Society, 2009-2010
- — Publication List —

  – Peter E. Caines, Daniel Ho, and Qingshuo Song. The density evolution of the killed Mckean-Vlasov process. arXiv:1812.10934 (accepted in 2019).
  – Xiaoshan Chen, Zhuo Jin, and Qingshuo Song. American Option Model and Negative Fichera Function on Degenerate Boundary. In *Modeling, Stochastic Control, Optimization, and Applications* (pp. 95-113). Springer, Cham. (2019).

- Yuecai Han, Qingshuo Song, and Gu Wang, Exit Problems as the Generalized Solutions of Dirichlet Problems, *SIAM J. Control Optim.*, 57(4), 23922414 (2019)
- Erhan Bayraktar, Qingshuo Song, Solvability of Dirichlet problem with Nonlinear Integro-differential Operator, *SIAM J. Control Optim.*, Vol 56 No. 1, pp 292-315 (2018)
- Jianhai Bao, Qingshuo Song, George Yin, and Chenggui Yuan, Ergodicity and strong limit results for two-time- scale functional stochastic differential equations, *Stochastic Analysis and Applications*, 35:6, 1030-1046, DOI: 10.1080/07362994.2017.1349613, (2017)
- Can Huang, Zhimin Zhang, Qingshuo Song, Spectral Methods for Substantial Fractional Differential Equations, *Journal of Scientific Computing*, Online, (2017)
- Yanting Ji, Qingshuo Song, and Chenggui Yuan, Neutral Stochastic Differential Delay Equations with Locally Monotone Coefficients, *DCDIS Series A: Mathematical Analysis*, 24, 195-217, (2017)
- Xiaoshan Chen, Yu-Jui Huang, Qingshuo Song, and Chao Zhu, On the Stochastic Solution to a Cauchy Problem Associated with Nonnegative Price Processes, *Journal of Mathematical Analysis and Applications*, 451(1), 448-472, (2017)
- Yao Tung Huang, Qingshuo Song, Harry Zheng, Weak Convergence of Path-Dependent SDEs in Basket Credit Default Swap Pricing with Contagion Risk, *SIAM Journal on Financial Mathematics*, 8(1); 1-27, (2017)
- Qingshuo Song, Chao Zhu, On singular control problems with state constraints and regime-switching: A viscosity solution approach, *Automatica J. IFAC*, 70; 66-73, (2016),
- Qingshuo Song, Pengfei Yang, Approximating Functional of Local Martingale Under the Lack of Uniqueness of Black-Scholes PDE, *Quantitative Finance*, 15(5); 901-908, (2015)
- Xuerong Mao, Qingshuo Song, Dichuan Yang, A Note on Exponential Almost Sure Stability of Stochastic Differential Equation, *Bulletin of the Korean Mathematical Society*, 51(1); 221-227, (2014),
- Qingshuo Song, George Yin, Qing Zhang, Weak Convergence Methods for Approximation of Path-dependent Functionals, *SIAM J. Control Optim.*, 51(5): 4189-4210, 2013.
- Tim Leung, Qingshuo Song, Jie Yang, Outperformance Portfolio Optimization via the Equivalence of Pure and Randomized Hypothesis Testing, *Finance and Stochastics*, 17(4); 839-870, (2013),
- Qingshuo Song, Qing Zhang, An Optimal Pairs-Trading Rule, *Automatica*, 49(10); 3007-3014, (2013),
- Jin Ma, Qingshuo Song, Jing Xu, and Jianfeng Zhang, Optimal Portfolio Selection Under Concave Price Impact, *Applied Mathematics and Optimization*, 67(3); 353-390, (2013), .
- Xiaoshan Chen, Qingshuo Song, Fahuai Yi, George Yin, Characterization of stochastic control with optimal stopping in a Sobolev space, *Automatica*, 49(6); 1654-1662, (2013),
- Erhan Bayraktar, Yu-jui Huang, Qingshuo Song, Outperforming the Market Portfolio with a Given Probability, *Annals of Applied Probability*, 22 (4); 1465-1494(2012),
- Desmond J. Higham, Xuerong Mao, Mikolaj Roj, Qingshuo Song, George Yin, Mean Exit Times and the Multi-level Monte Carlo Method, *SIAM/ASA Journal on Uncertainty Quantification*, 1(1): 2-18, (2013),
- Xun Li, Jie Shen, Qingshuo Song, Saddle Points of Discrete Markov Zero-Sum Game With Stopping, *Automatica J. IFAC* , 48(8): 1898-1903, 2012.
- Qingshuo Song, G. Yin, Chao Zhu, Optimal switching with constraints and utility maximization of an indivisible market, *SIAM J. Control Optim.*, 50(2); 629-651, 2012,

- Qingshuo Song, Markov Chain Approximation for Stochastic Control and Games, Book Chapter, *Probability: Interpretation, Theory and Applications*, edited by Yuriy S. Shmaliy, Nova Publishers, 2012,
- Qingshuo Song, Richard H. Stockbridge, Chao Zhu, On optimal harvesting problems in random environments, *SIAM J. Control Optim.*, 49(2): 859-889, 2011.
- Qingshuo Song, Guanrong Chen, Daniel W. C. Ho, On the Equivalence and Condition of Different Consensus Over a Random Network Generated by i.i.d. Stochastic Matrices, *IEEE Transactions on Automatic Control*, 56(5): 1203-1207, 2011.
- Erhan Bayraktar, Qingshuo Song, Jie Yang, On the Continuity of Stochastic Exit Control Problems, *Stochastic Analysis and Applications*, 29(1): 48-60, 2011,
- Q. S. Song, G. Yin, Convergence Rates of Markov Chain Approximation Methods for Controlled Diffusions with Stopping, *J Syst Sci Complexity*, 23(3): 600-621, 2010.
- Q. S. Song, G. Yin, Rates of convergence of numerical methods for controlled regime-switching diffusions with stopping times in the costs, *SIAM J. Control Optim.*, 48(3): 1831-1857, 2009.
- G. Yin, Q. S. Song, and H. Yang, Stochastic optimization algorithms for barrier dividend strategies, *J. of Computational and Applied Mathematics*, 223(1): 240–262, 2009.
- Q. S. Song, G. Yin, Q. Zhang, Stochastic optimization methods for buying-low-and-selling-high strategies, *Stoch. Anal. Appl.* , 27(3): 523-542, 2009.
- C. Zhu, G. Yin, Q. S. Song, Stability of random-switching systems of differential equations, *Quart. Appl. Math.*, 67(2): 201–220, 2009.
- Q. S. Song, G. Yin, and Z. Zhang, Numerical solutions for stochastic differential games with regime switching, *IEEE Transactions on Automatic Control*, 53(2): 509-521, 2008.
- Q. S. Song, Convergence of Markov chain approximation on generalized HJB equation and its applications, *Automatica J. IFAC* , 44(3): 761-766, 2008.
- Q. S. Song, G. Yin, and Z. Zhang, An ε-uniform finite element method for singularly perturbed two-point boundary value problems, *International Journal of Numerical Analysis and Modeling*, 4(1): 128-142, 2007.
- Q. S. Song, G. Yin, and Z. Zhang, Numerical solutions of stochastic control problems for regime-switching systems, *Dyn. Contin. Discrete Impuls. Syst. Ser. A Math. Anal.*, 13B(suppl.): 385–398, 2006.
- Q. S. Song, G. Yin, and Z. Zhang, Numerical methods for controlled regime-switching diffusions and regime-switching jump diffusions, *Automatica J. IFAC* , 42(7): 1147–1157, 2006.
- G. Yin, Q. S. Song, and Z. Zhang, Numerical solutions for jump-diffusions with regime switching, *Stochastics*, 77(1): 61–79, 2005.

• – Supervisorship –

- ——— WPI ——————
- Major Qualifying Project: Pavee Phongsopa (with Yanhua LI, 2019-2020)
- Master: Zhiyuan She (2019)
- Research Assistant: Wenhao Qiu (2019)
- ——— CityU HK ————
- PostDoc: Yao-Tung Huang (2014-2015); Xiaoshan Chen (2012-2013);

  - PhD: Jie Shen (2009-2013), Dichuan Yang (2009-2013);
  - Research Assistant: Siyu Lv, Yun Li (2018),
  - Master thesis: Sean Ellison (2016); Erik Olsson (2016); Wenwen Zhang (2013); Evan Man Kit Ma (2010);
  - Undergraduate Final Year Project:
    Yue Wang (2011), Joshua Hiew (2012), Ming Chen (2013), Wang Lap Hon (2013), Zhida Wang (2016), Yuan Wang (2017)
  - The Mathematical Contest in Modeling (MCM):
    Meritorious (2012) – Peihan Xiong; Tianyu Wang; Ning Kang

- — Teaching —
  - ——— Worcester Polytechnic Institute ———-
  - Spring 2020
    MA573 - COMPUTATIONAL METHODS OF FINANCIAL MATHEMATICS
  - Term D 2020
    MA 2071 - MATRICES AND LINEAR ALGEBRA I
  - Fall 2019
    MA 528 - MEASURE THEORETIC PROBABILITY THEORY
  - Spring 2019
    MA573 - COMPUTATIONAL METHODS OF FINANCIAL MATHEMATICS
  - Term D 2019
    MA 2071 - MATRICES AND LINEAR ALGEBRA I
  - ————- City University of Hong Kong ————
  - Semester B 2017/2018
    MA6623 - Advanced Mathematical Methods for Finance and Actuarial Science
  - Semester A 2017/2018
    MA1300 - Enhanced Calculus and Linear Algebra I
  - Semester A 2016/2017
    MA3512 - Partial Differential Equations
    MA1300 - Enhanced Calculus and Linear Algebra I
  - Semester B 2015/2016
    MA3521 - Intro Mathematical Finance
  - Semester A 2015/2016
    MA4542 - Real Analysis
    MA5621 - Math Meth for Finan & Actl Sci
  - Semester B 2014/2015
    MA 3521 - Introductory Mathematical Finance;
    MA 6627 - Stochastic Interest Rate Models
  - Semester B 2013/2014
    MA 3521 - Introductory Mathematical Finance;
    MA 6627 - Stochastic Interest Rate Models
  - Semester A 2012/2013
    MA 5621- Mathematical Methods for Finance and Actuarial Science

– Semester B 2012/2013
  MA 3521 - Introductory Mathematical Finance;
  MA 5624 - Sem. Math Fin & Actuarial Science;
  MA 6627 - Stochastic Interest Rate Models
– Semester A 2012/2013
  MA 5624 - Sem. Math Fin & Actuarial Science;
  MA 1300 - Enhanced Calculus and Linear Algebra I
– Semester B 2011/2012
  MA 3521 - Introductory Mathematical Finance;
  MA 5624 - Sem. Math Fin & Actuarial Science;
  MA 6627 - Stochastic Interest Rate Models
– Semester A 2011/2012
  MA 5624 - Sem. Math Fin & Actuarial Science
– Semester B 2010/2011
  MA 3521 - Introductory Mathematical Finance;
  MA 5624 - Sem. Math Fin & Actuarial Science
– Semester A 2010/2011
  MA 1001 - Higher Mathematics I (A);
  MA 5624 - Sem. Math Fin & Actuarial Science
– Semester B 2009/2010,
  MA 3521 - Introductory Mathematical Finance
– ——— University of Michigan ———
– Fall 2009
  Math 525 - Introduction to Probability Theory
– ——— University of Southern California ———-
– Summer 2009
  Math 605 - Topics on Prob. Theory: Controlled diffusions and applications in finance
– Spring 2009
  Math 125 - Calculus I;
  Math 407 - Probability theory
– Fall 2008
  Math 218 - Probability for business
– Summer 2008
  Math 118 - Fundamental principles of Calculus
– Spring 2008
  Math 125 - Calculus I
– Fall 2007
  Math 407 - Probability theory;
  Math 225 - Linear algebra and differential equations
– Spring 2007
  Math 218 - Probability for business
– Fall 2006
  Math 407 - Probability theory;
  Math 458 - Numerical methods
– ——— Wayne State University ———

- Spring/Summer 2006, Math 2020 - Calculus II; Math 2010 - Calculus I
- Winter 2006, Math 1800 - Precalculus: Elementary functions
- Fall 2005, Math 1800 - Precalculus: Elementary functions
- Winter 2004, Math 1800 - Precalculus: Elementary functions
- Spring/Summer 2003, Math 0991 - Basic concepts of beginning algebra
- Winter 2003, Math 0995 - Intermediate Algebra
- Fall 2002, Math 1050 - Algebra with trig. functions

- — Organized Conferences / Workshops —
  - As an organizer
  - Program committee member, CityU-SCUT workshop on estimation, control and mean field games, 2017,
  - Program committee member, SIAM conference on control and applications, 2015 - present,
  - Program committee member of *The Third Asian Quantitative Finance Conference (AQFC)*, at CUHK, July 2015
  - Chair of *Workshop : Quantitative Finance Day, Hong Kong Consortium of Quantitative Finance*, at City University of Hong Kong, May 2012
  - As a session chair
  - Session chair of *Stochastic control theory related to portfolio and risk management* at SIAM Conference on Financial Mathematics and Engineering, Austin, 2016
  - Session chair of *Controlled hybrid switching model and its applications* at SIAM conference on control and applications, Paris, 2015
  - Session chair of *Stochastic control perspectives in mathematical finance* at The 8th The International Congress on Industrial and Applied Mathematics (ICIAM), Beijing, 2015
  - Session chair of *Stochastic Control and Optimization Related to Portfolio and Risk Management* at SIAM Conference on Financial Mathematics and Engineering, Minneapolis, 2012
  - Session chair of *Stochastic Control, Heavy Traffic, Optimal Stopping and their Applications*, at SIAM Conference and Its Applications, Baltimore, 2011
  - Session chair of *System Identification III* at 46th IEEE Conference on Decision and Control, New Orleans, 2007

- — Presentations —
  - Invited talk, *SIAM Conference on Control and Its Applications (CT19)*, Chengdu, China, June 2019,
  - Colloquium talk, *University of Wisconsin-Milwaukee*, May 2019,
  - Invited talk, *The 23rd International Symposium on Mathematical Theory of Networks and Systems*, Hong Kong, July 2018
  - Invited talk, *The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Taiwan, July 2018
  - Invited talk, *IMA Workshop on Financial and Economic Applications*, Minneapolis, June 2018
  - Colloquium talk, *Department of Mathematical Sciences, WPI*, Massachusetts, March 2018

– Plenary talk, *The Second Tianfu Workshop on Financial Mathematics*, Chengdu, July 2017
– Invited talk, *THE Hong Kong Mathematical Society Annual General Meeting*, HKUST, 2017
– Invited talk, *The Workshop of Stochastic Analysis in Finance*, PolyU HK, May 2017
– Invited talk, *The Fifth Asian Quantitative Finance Conference (AQFC)*, Seoul, April 2017
– Invited talk, *The International Symposium on Probability Theory and Related Fields*, Shenzhen, China, November, 2016
– Invited talk, *The 4th TCCT Workshop on Stochastic System and Control*, Nan jing, China, November, 2016
– Invited talk, *School of Mathematics, Huazhong University of Science and Technology*, Wuhan, October 2016
– Invited talk, *Department of Mathematics, Wayne State University*, October 2016
– Invited talk, *Department of Mathematics, University of Michigan*, October 2016
– Invited talk, *Workshop on Stochastic Control and Financial Applications*, Hong Kong, August 2016,
– Seminar talk, *Department of Mathematics, Fudan University*, Shanghai, April 2016,
– Invited talk, *The 8th International Congress on Industrial and Applied Mathematics*, Beijing, August 2015,
– Invited talk, *SIAM conference on control and its application*, Paris, July 2015,
– Invited talk, *IMS-China International Conference on Statistics and Probability*, Yunnan, China, July 2015,
– Invited talk, *CUHK Symposium on Financial Risk Management*, Hong Kong, December 2014,
– Conributed talk, *SIAM conference on financial mathematics and engineering*, Chicago, US, November 2014,
– Colloquium talk, *University of Wisconsin-Milwaukee*, US, November 2014,
– Seminar talk, *KAIST*, Daejeon, Korea, September 2014,
– Invited talk, *The Tenth Workshop on Markov Processes and Related Topics*, Xi'an, China, August 2014,
– Invited talk, *The second Asian Quantitative Finance Conference (AQFC)*, Weihai, China, June 2014,
– Invited talk, *Workshop on Rare-event Stochastic Computing and Application* , Hong Kong, Jan 2014,
– Invited talk, *The Second International Conference on Engineering and Computational Mathematics* , Hong Kong, Dec 2013,
– Invited talk, *Workshop on Applied Mathematics* , Hong Kong, Dec 2013,
– Invited talk, *CityU-SCUT Joint Workshop on Stochastic Systems and Processes* , Hong Kong, June 2013,
– Seminar talk, *SEEM, Chinese University of Hong Kong*, April 2013.
– Seminar talk, *Math Dept. University of Southern California*, CA, March 2013.

- Invited talk, *The First Asian Quantitative Finance Conference (AQFC)* , Singapore, Jan 2013,
- Invited talk, *International Workshop in Stochastic Control and Its Applications*, PolyU, Hong Kong, Dec 2012,
- Invited talk, *2012 Forum on Financial Engineering and Risk Mangament (The 4th)*, South China Normal University, Guang Zhou, China, Dec 2013,
- Invited talk, *CityU-ZJU Joint Workshop on Applied Mathematics* , CityU, Hong Kong, Dec 2012,
- Invited talk, *The First Hong Kong - Shanghai Workshop on Quantitative Finance and Risk Management* , Shanghai, Sep 2012,
- Seminar talk, *Math Dept, Wayne State University*, Detroit, July, 2012,
- Seminar talk, *Dept of Mathematics, Statistics, and Computer Science , University of Illinois at Chicago*, Chicago, June, 2012,
- Invited talk, *CityU-Vanderbilt Workshop on Applied Mathematics* , Hong Kong, May 2012,
- Contributed talk, *2011 International Conference on Business Intelligence and Financial Engineering*, Hong Kong, December 2011,
- Seminar talk, *Math Dept, Nankai University*, Tian Jin, China, October, 2011,
- Invited talk, *Markov & semi-Markov Processes & Related Fields 2011*, Sithonia, Greece, September 2011,
- Invited talk, 2011 Sun Yat-sen University International Conference on Frontiers of Numerical PDEs, Guang Zhou, China, August 2011,
- Invited talk, *SIAM Conference on Control and Its Applications*, Baltimore, MD, July 2011.
- Seminar talk, *Math Dept, South China Normal University*, Guang Zhou, China, July 2011,
- Invited talk, *Quantitative Finance Day* Hong Kong, March, 2011.
- Contributed talk, *49th IEEE Conference on Decision and Control*, Atlanta, GA, December 2010.
- Colloquium talk, *Stat Dept. Chinese University of Hong Kong*, Hong Kong, October 2010.
- Invited talk, *19th International Symposium on Mathematical Theory of Networks and Systems*, Budapest, Hungary, July 2010.
- Poster, *6th World Congress of the Bachelier Finance Society*, Toronto, Canada, June 2010.
- Colloquium talk, *Math Dept. City University of Hong Kong*, Hong Kong, February 2009.
- Seminar talk, *Math Dept. University of California at Irvine*, CA, December 2008.
- Invited talk, *SIAM Conference on Financial Mathematics and Engineering: Mini symposium on Numerical and PDE Methods in Finance*, New Brunswick, NJ, November 2008.
- Invited talk, *Mathematical Theory of Networks and Systems*, Virginia Tech, VA, July 2008.
- Invited talk, *2008 American Control Conference*, Seattle, WA, June 2008. (Best Presentation Award)
- Seminar talk, *Math Dept. Wayne State University*, MI, April 2008.

- Contributed talk, *46th IEEE Conference on Decision and Control*, New Orleans, LA, December 2007.
- Invited talk, *SIAM Conference on Control and Its Applications: Mini symposium on Bellman and Isaacs Equations*, San Francisco, CA, June 2007.
- Seminar talk, *Math Dept. University of Southern California*, CA, February 2007.
- Poster, *Conference on Asymptotic Analysis in Stochastic Processes, Nonparametric Estimation and Related Problems*, Detroit, MI, September 2006.
- Poster, *45th IEEE Conference on Decision and Control*, San Diago, CA, December 2006.
- Seminar talk, *Math Dept. University of Southern California*, CA, September 2006.
- Colloquium talk, *Math Dept, University of Alabama in Huntsville*, AL, March 2006.
- Contributed talk, *Special Session on Stochastic, Large Scale and Hybrid Systems with Applications, at AMS-SIAM Joint Mathematics Meetings*, San Antonio, TX, January 2006.
- Poster, *Conference on Stochastic Control and Numerics*, Milwaukee, WI, September 2005. (Best Poster Award)
- Invited talk, *International Workshop on Differential Equations and Dynamical Systems*, University of Guelph, Canada, July 2005.
- Contributed talk, *The 6th Midwest Optimization Workshop*, Detroit, MI, September 2004.

• — Conference Proceedings: —

- Xun Li, Jie Shen, Qingshuo Song, Sufficient conditions on the existence of saddle points on Markov games, in *proceedings of 20th International Symposium on Mathematical Theory of Networks and Systems*, 2012.
- Tim Leung, Qingshuo Song, Jie Yang, Generalized Hypothesis Testing and Maximizing the Success Probability in Financial Markets, in *2011 International Conference on Business Intelligence and Financial Engineering*, 2011.
- Qingshuo Song, G. Yin, Rates of Convergence of Markov Chain Approximation for Controlled Regime-switching Diffusions with Stopping Times, in *49th IEEE Conference on Decision and Control*, 2010.
- Qingshuo Song, G. Yin, Convergence Rates of Markov Chain Approximation Methods for Controlled Regime-switching Diffusions with Stopping, in *proceedings of 19th International Symposium on Mathematical Theory of Networks and Systems*, (2010).
- Erhan Bayraktar, Yu-Jui Huang, Qingshuo Song, Outperforming the Market Portfolio with A Given Probability, *6th World Congress of the Bachelier Finance Society*, 2010.
- Erhan Bayraktar, Qingshuo Song, Jie Yang, On the Continuity of Stochastic Exit Control Problems, *6th World Congress of the Bachelier Finance Society*, 2010.
- Qingshuo Song, The wellposedness of the system of variational inequalities, in *proceedings of 18th International Symposium on Mathematical Theory of Networks and Systems* 2008.
- Q. S. Song, G. Yin, Numerical methods for buying-low-and-selling-high stock policy, in *proceedings of 2008 American Control Conference* 2008.
- X. Li, Q. S. Song, Markov chain approximation methods on generalized HJB equation, in *proceedings of 46th IEEE Conference on Decision and Control* 2007.
- Q. S. Song, G. Yin, Study of convergence rates of numerical methods for stochastic control problems, in *proceedings of 46th IEEE Conference on Decision and Control* 2007.

- Q.S. Song, G. Yin, Existence of saddle points in discrete Markov games and its application in numerical methods for stochastic differential games, in *proceedings of 45th IEEE Conference on Decision and Control* 2006.
- C. Zhu, G. Yin, Q. S. Song, On stability of hybrid systems with random-switching, *44th Annual Allerton Conference* 2006.

- — Professional servieces —
  - (Departmental Service at City University of Hong Kong)
  - 2016 - present: Programme Leader for MSc in Mathematics for Finance and Actuarial Science (MSMFAS)
  - 2016 - 2018: Member of Sub-Committee on Taught Postgraduate Programmes (STPP)
  - 2011 - 2015: MSMFAS Deputy Programme Leader
  - 2013 - 2014: Departmental Staffing Committee Member
  - 2011 - 2012: Deputy Admission Tutor
  - 2010 - 2012: MA Liaison Representatives for EF/MS Departments
  - 2010 - 2011: MSMFAS Assistant Programme Leader
  - (Departmental Service at University of Southern California)
  - 2006-2008: Screening exam committee member for Numerical Analysis
  - 2006-2007: Co-organizer of weekly seminar talk for CAMS (Center for Applied Mathematical Sciences)
  - 2006-2007: member of MURI project
  - (Others)
  - 2017: External Examiner for a MPhil Student of Xuefeng Gao, CUHK
  - 2017: External Examiner for a PhD student of Lingfei Li, CUHK
  - 2017: External Examiner for a PhD student of Qi Wu, CUHK
  - 2017: External Examiner for a PhD student of Mark Joshi and Zhuo Jin, University of Melbourne
  - 2017: Panel Chair and an examiner for a PhD of Daniel Ho, CityU HK
  - 2017: Panel Chair and an examiner for a PhD of Alain Bensoussan, CityU HK
- — Funding —
  - RGC General Research Fund (GRF), CityU 11201518, July 1, 2018 – June 30, 2020
  - City University of Hong Kong (SRG) 7004444, Sep 1, 2015 – Aug 30, 2017
  - City University of Hong Kong (SRG) 7004241, Sep 1, 2014 – Aug 30, 2015
  - Early Career Scheme (ECS), CityU 109613, Oct 1 2013 – Sep 30 2016
  - RGC General Research Fund (GRF), CityU 103310, Oct 1 2010 – Sep 30 2013
  - City University of Hong Kong (SRG) 7002818, Oct 1 2012 – Sep 30 2013
  - City University of Hong Kong (SRG) 7002677, May 1 2011 – Apr 30 2013