简历

基本信息

姓　　名　薄立军
工作单位　西安电子科技大学数学与统计学院
电子邮箱　lijunbo@xidian.edu.cn
学术主页　https://bolijun.github.io/

研究方向　随机分析，随机控制，最优动态跟踪，动态微分博弈，排队论，数理金融

教育经历

- 2006-09 至 2009-06, 南开大学, 概率论与数理统计, 博士 (导师：王永进)
- 2003-09 至 2006-06, 南开大学, 概率论与数理统计, 硕士 (导师：王永进)
- 1999-09 至 2003-06, 西安电子科技大学, 数学与应用数学, 学士

工作经历

- 2018-03 至今, 西安电子科技大学, 数学与统计学院概率统计系, 教授
- 2015-04 至 2018-02, 中国科学技术大学, 数学科学学院概率统计系, 教授
- 2013-08 至 2015-03, 西安电子科技大学, 数学与统计学院概率统计系, 教授
- 2013-10 至 2014-10, 美国约翰霍普金斯大学, 应用数学与统计系, 访问学者
- 2010-08 至 2013-07, 西安电子科技大学, 数学与统计学院概率统计系, 副教授
- 2009-07 至 2010-07, 西安电子科技大学, 理学院数学系, 讲师

科研项目与获奖

- 2025 校级本科教育教学成果奖一等奖 (第一完成人)
- 2025 陕西省学位与研究生教育学会研究生教育成果奖二等奖 (第四完成人)
- 2024 年度陕西省科学技术奖自然科学奖二等奖 (第一完成人)

- 2023 年度陕西高等学校科学技术研究优秀成果奖特等奖 (第一完成人)
- 主持“陕西数理基础科学研究项目”2024 年度重点项目
- 主持国家自然科学基金数理学部青年项目 1 项与面上项目 3 项
- 主持中科院前沿科学重点研究-青年拔尖科学家项目 (2016.8-2021.8)
- 2022 年陕西国家应用数学中心交叉团队培育项目
- 2022 年度陕西省杰出青年基金项目 (2022.1-2025.12)
- 陕西省工业与应用数学学会首届青年科技奖 (2019)
- 陕西省工业与应用数学学会首届青年优秀论文一等奖
- 中科院吴文俊数学重点实验室优秀论文一等奖 (2017)
- 2012 年度教育部新世纪优秀人才支持计划项目 (2012.1-2015.12)

教材编写

- 《随机过程: 计算与应用》（编著：冯海林，薄立军），西安电子科技大学出版社，2012
- 《哈佛概率论公开课》（译著：薄立军，李本崇），机械工业出版社，2020
  - 微信公众号“遇见数学”# 数学科普好书
- 《最优化模型：线性代数模型、凸优化模型及应用》（译著：薄立军），机械工业出版社，2022
- 《高等概率论》（编著：薄立军），科学出版社（十四五高等学校本科规划教材），2023
- 《线性代数与优化–机器学习视角》（译著：薄立军），机械工业出版社，2025.
- 《随机过程》（编著：薄立军，李文迪），西安电子科技大学出版社，2025.

学术服务

- 国际数理统计学会 IMS-China 理事
- 中国工业与应用数学学会理事 (2025.10-2029.10)
- 陕西省工业与应用数学学会副理事长

- 中国运筹学会理事
- 中国现场统计研究会工程概率统计分会副理事长
- 国家天元数学西北中心执行委员会委员
- 中国运筹学会金融工程与金融风险管理分会副理事长
- 2023 年陕西省科协决策咨询专家团队—复杂金融系统风险控制决策咨询专家团队负责人
- 中国数学会概率统计分会会刊《应用概率统计》编委
- 美国数学科学研究所旗舰期刊《Journal of Dynamics and Game》编委
- 美国数学会《Mathematical Review》特邀评论员
- 国家自然科学基金委数理学部重点、面上、青年、地区项目通讯评审专家；中国博士后基金通讯评审专家；教育部学位中心学位论文通讯评审专家
- 担任《Ann. Appl. Probab.》《Automatica》《Finan. Stoch.》《Insurance: Math. Econ.》《Math. Finan.》《Math. Oper. Res.》《Oper. Res.》《Stoch. Process. Appl.》《SIAM J. Contr. Optim.》《SIAM J. Finan. Math.》《SIAM J. Appl. Math.》《Science China: Math.》《Stoch. Syst.》《Trans. AMS》等期刊审稿人
- 国家天元数学西北中心 "随机分析与量化金融" 主题年活动组织委员会委员、重大专题研讨班 "量化金融的随机分析模型与控制方法" 召集人之一和重大交叉研究 (合作研究小组)"面向量化金融的随机分析模型与控制方法研究" 负责人之一
- 国家天元数学西北中 "随机分析与量化金融" 主题年活动 "量化金融的随机分析模型与控制方法专题研讨班" 召集人之一

预印本

1. Mean Field Game of Controls with State Reflections: Existence and Limit Theory (with J.F. Wang and X. Yu). arXiv:2503.03253
2. Constrained Mean-Field Control with Singular Control: Existence, Stochastic Maximum Principle and Constrained FBSDE (with J.F. Wang and X. Yu). arXiv:2501.12731
3. Mean Field Game Problem for the Optimal Control of Neuronal Spiking Activity (with D.F. Yang and S.H. Wang). arXiv:2412.12682

4. Optimal Consumption under Relaxed Benchmark Tracking and Consumption Drawdown Constraint (with Y.J. Huang, K.X. Yan and X. Yu). arXiv:2410.16611

5. Extended Mean Field Control Problems with Constraints: The Generalized Fritz-John Conditions and Lagrangian Method (with J.F. Wang and X. Yu). arXiv:2408.06865

6. Extended Mean-Field Control Problems with Poissonian Common Noise: Stochastic Maximum Principle and Hamiltonian-Jacobi-Bellman Equation (with J.F. Wang, X.L. Wei and X. Yu). arXiv:2407.05356

7. Continuous-time q-Learning for Jump-Diffusion Models under Tsallis Entropy (with Y.J. Huang, X. Yu and T.T. Zhang). arXiv:2407.03888

代表性论文[1]

1. An extended Merton problem with relaxed benchmark tracking (with Y.J. Huang and X. Yu). **Mathematical Finance** 2025. (中国数学会 T1 期刊)

2. On optimal tracking portfolio in incomplete markets: The reinforcement learning approach (with Y.J. Huang and X. Yu). **SIAM Journal on Control and Optimization** 63, 321-348, 2025. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

3. A decomposition-homogenization method for Robin boundary problems on the nonnegative orthant (with Y.J. Huang and X. Yu). **Electronic Journal of Probability** 29, 1-25, 2024. (国际数理统计学会 (IMS) 旗舰期刊；中国数学会 T2 期刊)

4. Stochastic control problems with state reflections arising from relaxed benchmark tracking (with Y.J. Huang and X. Yu). **Mathematics of Operations Research** 2025. (美国运筹学与管理科学学会 (INFORMS) 旗舰期刊；中国数学会 T1 期刊)

5. A mean field game approach to equilibrium consumption under external habit formation (with S.H. Wang and X. Yu). **Stochastic Processes and their Applications** 178, 104461, 1-27, 2024. (国际 Bernouli 数理统计与概率学会旗舰期刊；中国数学会 T2 期刊)

6. Mean field game of optimal relative investment with jump risk (with S.H. Wang and X. Yu). **Science China: Mathematics** 67, 1159-1188, 2024. (中国数学会 T1 期刊)

[1] *H INDEX: 19* (GOOGLE SCHOLAR).

7. A mean field game approach to optimal investment and risk control for competitive insurers (with S.H. Wang and C. Zhou). **Insurance: Mathematics and Economics** 116, 202-217, 2024. (中国数学会 T2 期刊)

8. Dynamic pricing with surging demand (with Y.J. Huang). **CSIAM Transactions on Applied Mathematics** 5, 142-181, 2024. (中国工业与应用数学学会会刊 (CSIAM) 旗舰期刊；中国数学会 T1 期刊)

9. Evaluation timing with dynamic information: Optimization and heuristic (with Meng Li and T.T. Zhang). **Production and Operations Management** 32(12), 3931-3950, 2023. (国际产品与运营管理学会 (POMS) 会刊；UTD 24 期刊)

10. Power forward performance in semimartingale markets with stochastic integrated factors (with A. Capponi and C. Zhou). **Mathematics of Operations Research** 48(1), 288-312, 2023. (美国运筹学与管理科学学会 (INFORMS) 旗舰期刊；中国数学会 T1 期刊)

11. Centralized systemic risk control in the interbank system: Weak formulation and Gamma-convergence (with T.Q. Li and X. Yu). **Stochastic Processes and their Applications** 150, 622-654, 2022. (国际 Bernouli 数理统计与概率学会旗舰期刊；中国数学会 T2 期刊)

12. Risk-sensitive credit portfolio optimization under partial information and contagion risk (with H.F. Liao and X. Yu). **The Annals of Applied Probability** 32(4), 2355-2399, 2022. (国际数理统计学会 (IMS) 旗舰期刊；中国数学会 T2 期刊)

13. Large sample mean-field stochastic optimization (with A. Capponi and H. Liao). **SIAM Journal on Control and Optimization** 60(4), 2538-2573, 2022. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

14. Optimal tracking portfolio with a ratcheting capital benchmark (with H. Liao and X. Yu). **SIAM Journal on Control and Optimization** 59(3), 2346-2380, 2021. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

15. Risk sensitive portfolio optimization with default contagion and regime-switching (with H. Liao and X. Yu). **SIAM Journal on Control and Optimization** 57(1), 366-401, 2019. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

16. Credit portfolio selection with decaying contagion intensities (with A. Capponi and P.C. Chen). **Mathematical Finance** 29(1), 137-173, 2019. (国际 Bachelier 金融学会 (BFS) 旗舰期刊；中国数学会 T1 期刊)

17. Risk-sensitive asset management and cascading defaults (with J.R. Birge and A. Capponi). **Mathematics of Operations Research** 43(1), 1-28, 2018. *Featured Papaer.* (美国运筹学与管理科学学会 (INFORMS) 旗舰期刊；中国数学会 T1 期刊)

18. Portfolio choice with market–credit-risk dependencies (with A. Capponi). **SIAM Journal on Control and Optimization** 56(4), 3050-3091, 2018. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

19. Optimal credit investment with borrowing costs (with A. Capponi). **Mathematics of Operations Research** 42(2), 546-575, 2017. (美国运筹学与管理科学学会 (INFORMS) 旗舰期刊；中国数学会 T1 期刊)

20. Optimal investment under information driven contagious distress (with A. Capponi). **SIAM Journal on Control and Optimization** 55(2), 1020-1068, 2017. (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T1 期刊)

21. Robust optimization of credit portfolios (with A. Capponi). **Mathematics of Operations Research** 42(1), 30-56, 2017. (美国运筹学与管理科学学会 (INFORMS) 旗舰期刊；中国数学会 T1 期刊)

22. Optimal investment in credit derivatives portfolio under contagion risk (with A. Capponi). **Mathematical Finance** 26(4), 785-834, 2016. (国际 Bachelier 金融学会 (BFS) 旗舰期刊；中国数学会 T1 期刊)

23. Systemic risk in interbanking networks (with A. Capponi). **SIAM Journal on Financial Mathematics** 6(1), 386-424, 2015. *Featured Papaer.* (美国工业与应用数学学会 (SIAM) 旗舰期刊；中国数学会 T2 期刊)

24. Counterparty risk for CDS: Default clustering effects (with A. Capponi). **Journal of Banking and Finance** 52, 29-42, 2015. (SSCI 检索期刊)

其他论文

1. De Finetti's Poissonian dividend control problem under spectrally positive Markov additive process (with W.Y. Wang and K.X. Yan). To appear in **Stochastic Models**, 2025 (中国数学会 T3 期刊)

2. Optimal inventory control with state dependent jumps (with Y.J. Huang). To appear in **Advances in Applied Probability**, 2025 (中国数学会 T3 期刊)

3. The cooperative mean field game for production control with sticky price (with T.Q. Li). To appear in **Communications in Mathematics and Statistics**, 2023 (中国数学会 T1 期刊)

4. Approximating Nash equilibrium for optimal consumption in stochastic growth model with jumps (with T.Q. Li). **Acta Mathematica Sinica, English Series** 38(9), 1621-1642, 2022. (中国数学会 T1 期刊)

5. Probabilistic analysis of replicator–mutator equations (with H. Liao). **Advances in Applied Probability** 54(1), 167-201, 2022. (中国数学会 T3 期刊)

6. 基于平均场博弈的新冠肺炎最优防控力度切换策略 (薄立军、张婷婷). **应用概率统计** 37(3), 274-290, 2021. (中国数学会 T3 期刊)

7. Dynamic analysis of counterparty exposures and netting efficiency of central counterparty clearing (with Y. Liu and T.T. Zhang). **Quantitative Finance** 21(7), 1187-1206, 2021. (中国数学会 T3 期刊)

8. Locally risk-minimizing hedging of counterparty risk for portfolio of credit derivatives (with C. Ceci). **Applied Mathematics and Optimization** 82, 799-850, 2020. (中国数学会 T2 期刊)

9. Optimal credit investment and risk control for an insurer with regime-switching (with H.F. Liao and Y.J. Wang). **Mathematics and Financial Economics** 13, 147-172, 2019. (中国数学会 T3 期刊)

10. Dynamic investment and counterparty risk (with A. Capponi). **Applied Mathematics and Optimization** 77, 1-45, 2018. (中国数学会 T2 期刊)

11. Portfolio optimization of credit swap under funding costs. **Probability, Uncertainty and Quantitative Risk** 2(1), 1-23, 2017. (中国数学会 T2 期刊)

12. Optimal investment of variance-swaps in jump-diffusion market with regime-switching (with D. Tang and Y. Wang). **Journal of Economic Dynamics and Control** 83, 175-197, 2017. (SSCI 检索期刊)

13. Optimal investment and risk control for an insurer with stochastic factor (with S. Wang). **Operations Research Letters** 45(3), 259-265, 2017.

14. The pricing of basket options: A weak convergence approach (with Y.J. Wang). **Operations Research Letters** 45(2), 119-125, 2017.

15. Stochastic delay differential equations with jump reflection: invariant measure (with C. Yuan). **Stochastics** 88(6), 841-863, 2016. (中国数学会 T3 期刊)

16. Stability in distribution of Markov-modulated stochastic differential delay equations with reflection (with C. Yuan). **Stochastic Models** 32(3), 392-413, 2016. (中国数学会 T3 期刊)

17. Bilateral credit valuation adjustment for large credit derivatives portfolios (with A. Capponi). **Finance and Stochastics** 18, 431-484, 2014.

18. On the default probability in a regime-switching regulated market (with Y. Wang and X. Yang). **Methodology and Computing in Applied Probability** 16, 101-113, 2014.

19. On the conditional default probability in a regulated market with jump risk (with X. Li, Y. Wang and X. Yang). **Quantitative Finance** 13(12), 1967-1975, 2013. (中国数学会 T3 期刊)

20. Optimal investment and consumption with default risk: Hara utility (with X. Li, Y. Wang and X. Yang). **Asia-Pacific Financial Markets** 20, 261-281, 2013.

21. Kernel-correlated Lévy field driven forward rate and application to derivative pricing (with Y. Wang and X. Yang). **Applied Mathematics and Optimization** 68(1), 21-41, 2013. (中国数学会 T2 期刊)

22. Large deviation for the nonlocal Kuramoto–Sivashinsky SPDE (with Y. Jiang). **Nonlinear Analysis: Theory, Methods and Applications** 82, 100-114, 2013.

23. First passage times of reflected generalized Ornstein–Uhlenbeck processes (with G. Ren, Y. Wang and X. Yang). **Stochastics and Dynamics** 13(01), 1250014, 2013. (中国数学会 T3 期刊)

24. Stochastic portfolio optimization with default risk (with Y. Wang and X. Yang). **Journal of Mathematical Analysis and Applications** 397(2), 467-480, 2013. (中国数学会 T3 期刊)

25. First passage times of reflected Ornstein–Uhlenbeck processes with two-sided jumps. **Queueing Systems** 73, 105-118, 2013.

26. First passage times of constant-elasticity-of-variance processes with two-sided reflecting barriers (with C. Hao). **Journal of Applied Probability** 49(4), 1119-1133, 2012. (中国数学会 T3 期刊)

27. Optimal portfolio and consumption selection with default risk (with Y. Wang and X. Yang). **Frontiers of Mathematics in China** 7, 1019-1042, 2012. (中国数学会 T2 期刊)

28. Sequential maximum likelihood estimation for reflected generalized Ornstein–Uhlenbeck processes (with X. Yang). **Statistics and Probability Letters** 82(7), 1374-1382, 2012. (中国数学会 T3 期刊)

29. Lévy risk model with two-sided jumps and a barrier dividend strategy (with R. Song, D. Tang, Y. Wang and X. Yang). **Insurance: Mathematics and Economics** 50(2), 280-291, 2012. (中国数学会 T2 期刊)

30. On the conditional default probability in a regulated market: a structural approach (with D. Tang, Y. Wang and X. Yang). **Quantitative Finance** 11(12), 1695-1702, 2011. *Featured Paper* (中国数学会 T3 期刊)

31. Derivative pricing based on the exchange rate in a target zone with realignment (with Y. Wang and X. Yang). **International Journal of Theoretical and Applied Finance** 14(06), 945-956, 2011.

32. First passage times of (reflected) Ornstein-Uhlenbeck processes over random jump boundaries (with Y. Wang and X. Yang). **Journal of Applied Probability** 48(3), 723-732, 2011. (中国数学会 T3 期刊)

33. On a stochastic interacting model with stepping stone noises (with Y. Wang). **Statistics and Probability Letters** 81(8), 1300-1305, 20113 (中国数学会 T3 期刊)

34. Exponential change of measure applied to term structures of interest rates and exchange rates. **Insurance: Mathematics and Economics** 49(2), 216-225, 2011. (中国数学会 T2 期刊)

35. Mean first passage times of two-dimensional processes with jumps (with M. Lefebvre). **Statistics and Probability Letters** 81(8), 1183-1189, 2011. (中国数学会 T3 期刊)

36. A note on stability in distribution of Markov-modulated stochastic differential equations with reflection (with C. Yuan). **Computers and Mathematics with Applications** 61(10), 3010-3016, 2011.

37. Some integral functionals of reflected SDEs and their applications in finance (with Y. Wang and X. Yang). **Quantitative Finance** 11(3), 343-348, 2011. *Featured Paper* and *ESI Highly Cited Paper at* 2012. (中国数学会 T3 期刊)

38. Variational solutions of dissipative jump-type stochastic evolution equations (with K. Shi and Y. Wang). **Journal of Mathematical Analysis and Applications** 373(1), 111-126, 2011. (中国数学会 T3 期刊)

39. Maximum likelihood estimation for reflected Ornstein–Uhlenbeck processes (with Y. Wang, X. Yang and G. Zhang). **Journal of Statistical Planning and Inference** 141(1), 588-596, 2011. (中国数学会 T2 期刊)

40. An optimal portfolio problem in a defaultable market (with Y. Wang and X. Yang). **Advances in Applied Probability** 42(3), 689-705, 2010. (中国数学会 T3 期刊)

41. Markov-modulated jump–diffusions for currency option pricing (with Y. Wang and X. Yang). **Insurance: Mathematics and Economics** 46(3), 461-469, 2010. (中国数学会 T2 期刊)

42. On a stochastic wave equation driven by a non-Gaussian Lévy process (with K. Shi and Y. Wang). **Journal of Theoretical Probability** 23(1), 328-343, 2010. (中国数学会 T2 期刊)

43. Support theorem for a stochastic Cahn-Hilliard equation (with K. Shi and Y. Wang). **EJP**, 2010. (中国数学会 T2 期刊)

44. Large deviations for perturbed reflected diffusion processes (with T. Zhang). **Stochastics: An International Journal of Probability and Stochastics** 18, 2009. (中国数学会 T3 期刊)

45. Approximating solutions of neutral stochastic evolution equations with jumps (with K.H. Shi and Y.J. Wang). **Science in China Series A: Mathematics** 52(5), 895-907, 2009. (中国数学会 T1 期刊)

46. Stochastic Cahn–Hilliard equation with fractional noise (with Y. Jiang and Y. Wang). **Stochastics and Dynamics** 8(04), 643-665, 2008. (中国数学会 T3 期刊)

47. Jump type Cahn-Hilliard equations with fractional noises (with K. Shi and Y. Wang). **Chinese Annals of Mathematics, Series B** 29(6), 663-678, 2008. (中国数学会 T1 期刊)

48. On a class of stochastic Anderson models with fractional noises (with Y. Jiang and Y. Wang). **Stochastic Analysis and Applications** 26(2), 256-273, 2008. (中国数学会 T3 期刊)

49. Higher-order stochastic partial differential equations with branching noises (with Y. Wang and L. Yan). **Frontiers of Mathematics in China** 3, 15-35, 2008. (中国数学会 T1 期刊)

50. Lyapunov exponent estimates of a class of higher-order stochastic Anderson models (with D. Tang). **Proceedings of the American Mathematical Society** 136(11), 4033-4043, 2008. (中国数学会 T2 期刊)

51. Explosive solutions of stochastic wave equations with damping on R^d (with D. Tang and Y. Wang). **Journal of Differential Equations** 244(1), 170-187, 2008. (中国数学会 T2 期刊)

52. On a nonlocal stochastic Kuramoto–Sivashinsky equation with jumps (with K. Shi and Y. Wang). **Stochastics and Dynamics** 7(04), 439-457, 2007. (中国数学会 T3 期刊)

53. Discontinuous Galerkin method for elliptic stochastic partial differential equations on two and three dimensional spaces (with R. Yao). **Science in China Series A: Mathematics** 50, 1661-1672, 2007. (中国数学会 T1 期刊)

54. Strong comparison result for a class of reflected stochastic differential equations with non-Lipschitzian coefficients (with R. Yao). **Frontiers of Mathematics in China** 2, 73-85, 2007. (中国数学会 T1 期刊)

55. On the first passage times of reflected OU processes with two-sided barriers (with L. Zhang and Y. Wang). **Queueing Systems** 54(4), 313-316, 2006.

56. Stochastic Cahn-Hilliard partial differential equations with Levy spacetime white noises (with Y. Wang). **Stochastics and Dynamics** 6(02), 229-244, 2006. (中国数学会 T3 期刊)

专著

1. Monograph: Lijun Bo and Xiang Yu (2025): "New Models and Methods in Dynamic Portfolio Optimization" *Series in Quantitative Finance*, World Scientific Publishing Co Pte Ltd.

学术会议

1. 国家天元数学西北中心“平均场模型、控制与博弈及其相关主题研讨会”，西安电子科技大学，组织者 (2024.11.22-24)
2. 随机量化金融青年论坛, 国家天元数学西北中心“随机分析与量化金融”主题年，组织者 (2022.6.4-5)
3. 2022 年应用数学交叉研讨会, 陕西国家应用数学中心, 组织者 (2022.11.15-16)
4. 第二届概率统计学科建设研讨会, 组织者 (2021.7.20)
5. 国家天元数学西北中心”随机分析、金融统计与人工智能交叉前沿论坛”, 组织者 (2018.8.15-17)

学术报告

1. An Extended Merton Problem with Relaxed Benchmark Tracking, 中国科学技术大学数学科学学院主办、黄山学院数学与统计学院承办的 2025 随机分析会议邀请报告 (2025.10.24-27)
2. An Extended Merton Problem with Relaxed Benchmark Tracking, 重庆大学数学与统计学院学术报告 (2025.10.16)
3. Mean Field Game of Optimal Tracking Portfolio, Workshop on “Mean Field Games and Applications”, Humboldt-University Berlin and Bielefeld University (2025.7.20-24)
4. Extended mean field control problems with constraints: The generalized Fritz-John conditions and Lagrangian method, 第三届香港工业与应用数学学会年会 (The 3rd HKSIAM Biennal Conference, 2025.7.7-11)
5. Extended Mean Field Control Problems with Constraints: The Generalized Fritz-John Conditions and Lagrangian Method, 四川大学数学学院 (2025.5.14)
6. Reinforcement Learning Approach to Optimal Tracking Portfolio in Incomplete Markets, 基于数据增强的强化学习策略泛化理论及其应用研讨会, 西安交通大学 (2025.3.15-16)
7. A Class of Stochastic Control Problems Arising from Relaxed Benchmark Tracking, 中国精算研究院精算论坛第 254 期讲座，中央财经大学 (2024.12.20)

8. Fritz-John Type Optimality Condition for Extended Mean Field Control Problem with Constraints, 随机分析及其相关领域学术研讨会，武汉大学 (2024.11.15-17)

9. Stochastic Control Problems with State-Reflections Arising From Relaxed Benchmark Tracking, 华南师范大学数学科学学院 (2024.11.9)

10. Stochastic Maximum Principle for Extended Mean Field Control Problem with Constraints, 福建师范大学数学与统计学院、分析数学及应用教育部重点实验室 (2024.11.7)

11. Fritz-John Type Optimality Condition for Extended Mean Field Control Problem with Constraints, 哈工大-武大概率青年会议，哈尔滨工业大学 (2024.8.19-21)

12. Optimal Inventory Control with State Dependent Jumps, The 19th International Workshop on Markov Processes and Related Topics, Fuzhou (2024.7.24)

13. A Mean Field Approach to Equilibrium Consumption under External Habit Formulation, 第三届金融数学与工程和保险精算研讨会，四川成都 (2024.7.14)

14. An Extended Merton Problem with Relaxed Benchmark Tracking, 安徽师范大学数学与统计学院零壹论坛第 341 讲 (2023.12.15)

15. Mean Field Model and Mean Field Game, *The AI4 Science Workshop*, 德国法兰克福高等研究院 (FIAS) (2023.9.17-9.22)

16. The Optimal Tracking Problem and Reinforcement Learning, 学术访问, 香港理工大学应用数学系 (2023.8.9-8.22)

17. An Extended Merton Problem with Tracking Monotone Benchmark Process, *Tianfu Workshop on Financial Mathematics*, 西南财经大学数学学院 (2023.7.21-23)

18. An Extended Merton Problem with Tracking Monotone Benchmark Process, *Seminar on Probability and Stochastic Control*, 南方科技大学数学系 (2023.7.13)

19. Optimal Inventory Control with State-Dependent Jumps, *Workshop on Stochastic Analysis and Applications*, 华中科技大学数学与统计学院 (2023.6.28)

20. An Extended Merton Problem with Tracking Benchmark Process, 国家天元数学东南中心学术报告，厦门大学 (2023.5.30)

21. 平均场交互模型与平均场博弈，陕西国家应用数学中心数学与数学应用讲坛，西安交通大学数学与统计学院 (2023.4.27)

22. A Stochastic Control Problem Arising From Relaxed Wealth Tracking with a Monotone Benchmark Process, 金融科技论坛，西安交通大学经济与金融学院 (2023.4.25)

23. An Extended Merton Problem with Tracking Monotone Benchmark Process, 2023 年西北地区青年教师发展论坛，国家天元数学西北中心 (2023.4.22-23)

24. The Tracking Portfolio Optimization, 福建师范大学 115 周年校庆系列学术报告，福建师范大学数学与统计学院 (2022.12.8)

25. 主题邀请报告，Large Sample Mean-Field Stochastic Optimization, 2022 年中国运筹学会金融工程与金融风险管理第十一届学术年会，河北师范大学 (2022.12.10-11)

26. A Large Sampled Mean-Field Stochastic Optimization Problem, *Stochastic Control Seminar*, 上海交通大学数学科学学院 (2022.11.3)

27. 动态信息到达下的最优产品评估：最优停止方法，吉林大学数学学院学术报告，吉林大学数学学院 (2022.7.18)

28. A Mean-Field Stochastic Control Problem in Deep Residual Learning, *Probability and Statistics Seminar*, 华中科技大学数学与统计学院 (2021.6.24)

29. Optimal Tracking Portfolio with A Ratcheting Capital Benchmark, 中国工业与应用数学年会第 18 届年会, 湖南省长沙市 (2020.10.29-11.1)

30. Invited Speaker, *The 2nd International Symposium on Partial Differential Equations & Stochastic Analysis in Mathematical Finance*, 清华三亚丘成桐数学论坛，三亚 (2020.1.6-10)

31. Keynote Speaker, *Tianfu International Workshop on Financial Mathematics*, 四川省成都市 (2019.7.19-21)

32. Risk Sensitive Portfolio Optimization with Default Contagion and Regime-Switching, *Probability and Mathematical Finance Seminar*, 山东大学数学科学学院 (2018.3.30)

33. Analysis of Inter-Banking Network using Interacting Jump-Diffusion System: A Weak Convergence Approach, *Probability Seminar*, 华南师范大学数学与统计学院 (2017.12.22)

34. Analysis of Inter-Banking Network using Interacting Jump-Diffusion System: A Weak Convergence Approach, *Management Science Seminar*, 中山大学岭南学院 (2017.12.22)

35. Risk Minimal Hedging of Counterparty Risk, 2017 年中国数学会年会, 湖南省湘潭市 (2017.12.21-23)

36. Risk Minimal Hedging of Counterparty Risk, 中国工业与应用数学学会第十五届年会 (CSIAM 2017), 山东省青岛市 (2017.10.12-15)

37. Risk Minimal Hedging of Counterparty Risk, *Annual Meeting of Financial Engineering and Risk Management of ORSC*, 湖南大学 (2017.9.23-24)

38. Risk-Sensitive Asset Management and Cascading Defaults, *Control of Stochastic Nonlinear Systems and Related Fields*, 山东大学青岛分校 (2017.6.23-25)

39. Risk Sensitive Control and Applications in Cascading Default, *2017 Workshop on Stochastic Processes and Applied Probability*, 吉林大学数学学院 (2017.6.17-18)

40. Risk Sensitive Control and Cascading Defaults, 西安交通大学丝绸之路青年学者论坛, 西安交通大学数学与统计学院 (2016.12.20-22)

41. Risk Sensitive Asset Management and Cascading Defaults, *International Conference on Probability Theory and Related Fields*, 南方科技大学 (2016.11.26-29)

42. Systemic Risk of Interbanking Network, *Second Workshop on Risk Measures, XVA Analysis, Capital Allocation and Central Counterparties*, 上海交通大学高级金融研究院 (SAIF) (2016.10.27-29)

43. Optimal Credit Investment with Borrowing Costs, *Guangzhou 2016 Symposium on Financial Engineering and Risk Management (FERM 2016)*, 中山大学 (2016.6.12-13)

44. Optimal Credit Investment with Borrowing Costs, *Statistics Seminar*, 北京大学光华管理学院 (2016.6.8)

45. Systemic Risk in Mean-Field Interacting Jump-Diffusion Networks: A Weak Convergence Approach, *Mathematical Finance Seminar*, 华东师范大学经济与管理学院 (2016.1.6)

46. Portfolio Optimization and Valuations of Credit Portfolios, *Financial Seminar*, 南开大学数学科学学院 (2015.12.29)

47. Robust Portfolio Optimization of Credit Portfolios, *International Workshop on Credit Risk*, 北京航空航天大学管理学院 (2015.12.27)

48. Approximation of Stochastic Differential Equations with Mean-Field Interaction and Lévy Noises, *SPDE Seminar*, 华中科技大学数学中心 (2015.12.19)

49. Robust Dynamic Optimization of Credit Portfolios, *International Conference on Control Theory and Mathematical Finance*, 复旦大学数学科学学院 (2015.8.16-18)

50. Systemic Risk in Interbanking Networks: A Weak Convergence Approach, *Workshop on Markov Processes and Stochastic Models*, 中南大学数学与统计学院 (2015.6.23-25)

51. Optimal Investment under Information Driven Default Contagion, 北京大学青年概率学者论坛, 北京大学数学学院 (2015.7.6-8)

52. Credit Portfolio Optimization Problem under Default Contagion Risk, *Mathematical Finance Seminar*, 南京师范大学数学科学学院 (2015.5.15)

53. Systemic Risk in Interbanking Networks: A Weak Convergence Approach, 概率青年学者论坛，武汉大学数学与统计学院 (2015.5.1-4)

54. Weak Convergence Analysis of Systemic Risk in Interbanking Networks, 吴文俊数学重点实验室概率与统计系列讲座，中国科学技术大学数学科学学院 (2014.11.7)

55. Optimal Investment in Defaultable Securities under Information Driven Default Contagion, *AMS Spring Eastern Sectional Meeting Special Session on Mathematical Finance*, University of Maryland, Baltimore County, Baltimore, MD, USA (2014.3.29-30)

56. Bilateral Credit Valuation Adjustment for Large Credit Derivatives Portfolios, *Mathematical Finance and Partial Differential Equations*, New Brunswick, New Jersey, USA (2013.11.1-2)

57. Bilateral Credit Valuation Adjustment for Large Credit Derivatives Portfolios, *Sino-French Research Program in Financial Mathematics*, 北京国际数学研究中心 (2013.6.19-28)

58. Some Results on Reflected Lévy Processes with Two-Sided Jumps, *Beijing-Swansea Workshop on Stochastic Processes*, 北京师范大学数学科学学院 (2012.4.14-17)

59. Exponential Change of Measure Applied to Term Structure Modelings, *Probability Seminar*, LPMA and University of Pair 7, Paris. (2011.5.6-30)

60. An Optimal Portfolio Problem with Default Risk, Probability and Statistics Seminar, University of Melbourne, Melbourne (2009.7-8)

博士生指导

- 常伟强 (在读博士生，西安电子科技大学)
- 杨东方 (在读博士生，西安电子科技大学)

- 刘真 (在读博士生, 中科大，香港理工大学应用数学系研究助理 (RA))
- 王敬飞 (在读博士生, 中科大，香港理工大学应用数学系研究助理 (RA))
- 黄一杰 (2025 年获得中科大概率论与数理统计专业博士学位, 目前为香港理工大学应用数学系博士后)
- 李童庆 (2022 年获得中科大概率论与数理统计专业博士学位; 目前为西安电子科技大学数学与统计学院华山准聘副教授)
- 张婷婷 (2022 年获得中科大概率论与数理统计专业博士学位; 目前为苏州大学金融工程研究中心助理教授)
- 廖华夫 (2019 年获得中科大概率论与数理统计专业博士学位; 先后在德国柏林洪堡大学和新加坡国立大学数学系作博士后; 目前为大连理工大学数学与统计学院**教授**, 海外优青)