Wing-Cheong (Jon) Lo

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City University of Hong Kong
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Research Interests

- **Mathematical and Computational Biology**
  Morphogen-mediated patterning, Formation of cell polarization, Feedback control of cell lineages, Modeling tumor immunology, Veterinary science, Epidemiology
- **Numerical Methods for Stochastic System**
  Hybrid numerical method, Spatial Stochastic Simulation

Research Experiences

2022 Jul –	**Associate Professor** **Department of Mathematics** **City University of Hong Kong**
2015 Jan – 2022 Jun	**Assistant Professor** **Department of Mathematics** **City University of Hong Kong**
2011 Sep – 2014 Dec	**Postdoctoral Fellow** **Mathematical Biosciences Institute** **The Ohio State University** Mentors: Avner Friedman (Mathematics, OSU), Ching-Shan Chou (Mathematics, OSU) and Hay-Oak Park (Molecular Genetics, OSU)
2011 Jul – 2011 Aug	**Assistant Specialist** **Department of Mathematics** **University of California, Irvine**
2007 – 2011 Jun	**Research Assistant** **University of California, Irvine** Supported by **NIH Center of Excellence on System Biology**

Education

2006 – 2011	**University of California, Irvine** **Doctor of Philosophy (Mathematics)** Supervisor: Prof. Qing Nie (UCI) Dissertation Topic: *Growth and Pattern Controls by Morphogen Gradients*
2004 – 2006	**Hong Kong University of Science and Technology** **Master of Philosophy (Mathematics)** Supervisor: Prof. S. Y. Cheng (HKUST) Thesis topic: *Analysis and Improvement of Total Variation Regularization*

2001 – 2004   **Hong Kong University of Science and Technology**
                   Bachelor of Sciences (Mathematics) First Class Honor

Publications

Accepted or published

38. Qiantong Liang, Johnny Yang, Wai-Tong Louis Fan and **Wing-Cheong Lo, Patch formation driven by stochastic effects of interaction between viruses and defective interfering particles**, PLoS Computational Biology, 2023, 19, 10, e1011513.

37. Yu Mu and **Wing-Cheong Lo**, **Hopf bifurcation of a turbidostat model with nutrient recycling and multiple delay effects,** Discrete and Continuous Dynamical Systems-B, 2023, 422, 114924.

36. Yue Liu, Jun Xie, Hay-Oak Park and **Wing-Cheong Lo**, **Mathematical modeling of cell polarity establishment of budding yeast**, Communications on Applied Mathematics and Computation, 2022, https://doi.org/10.1007/s42967-022-00240-y

35. Yu Mu and **Wing-Cheong Lo**, **Hopf and Turing bifurcation for a competition and cooperation system with spatial diffusion effect**, Journal of Computational and Applied Mathematics, 2022, 422, 114924.

34. Yu Mu and **Wing-Cheong Lo**, **Bifurcation analysis of a competitive system with general toxic production and delayed toxic effects**, Journal of The Franklin Institute, 2022, 359(18),10884-10906,

33. Yu Mu, Tsz-Lik Chan, Hsiang-Yu Yuan and **Wing-Cheong Lo, Transmission dynamics of Tuberculosis with age-specific disease progression**, Bulletin of Mathematical Biology, 2022, 86: 73.

32. Tsz-Lik Chan, Hsiang-Yu Yuan and **Wing-Cheong Lo, Modeling COVID-19 transmission dynamics with self-learning population behavioral change**, Frontiers in Public Health, 2021, 9:768852. doi: 10.3389/fpubh.2021.768852.

31. Qiantong Liang and **Wing-Cheong Lo, Analysis of Th1/Th2 response pattern with Treg cell inhibition and stochastic effect,** Chaos, Solitons and Fractals, 2021, 153(1), 111472.

30. Yue Liu, Ioannis Magouras and **Wing-Cheong Lo**, **Modelling and analyzing the potential controls for *Neospora caninum* infection in dairy cattle using an epidemic approach**. Complexity, 2021, vol. 2021, 5529987.

29. Yu Mu and **Wing-Cheong Lo**, **Stochastic dynamics of populations with refuge in polluted turbidostat**. Chaos, Solitons and Fractals, 2021, 147, 110963.

28. Yue Liu and **Wing-Cheong Lo**, **Stability analysis and optimal control of production-limiting disease in farm with two vaccines**. Discrete and Continuous Dynamical Systems-B, 2021, doi: 10.3934/dcdsb.2021058

27. Yue Liu and **Wing-Cheong Lo**, **Deterministic and stochastic analysis for different types of regulations in the spontaneous emergence of cell polarity**. Chaos, Solitons and Fractals, 2021, 144, 110620.

26. Yu Mu and **Wing-Cheong Lo, Dynamics of the food-chain population in a polluted environment with impulsive input of toxicant**. Discrete and Continuous Dynamical Systems-B, 2020, doi: 10.3934/dcdsb.2020279.

25. Yu Mu and **Wing-Cheong Lo, Dynamics of microorganism cultivation with delay and stochastic perturbation**. Nonlinear Dynamics, 2020, 101(1), 501-519.

24. Yanli Wang*, **Wing-Cheong Lo*** and Ching-Shan Chou, **Modeling stem cell aging: a multi-compartment continuum approach**. Royal Society Open Science, 2020, 7191848.   *Co-first author

23. Yue Liu, Michael P. Reichel and **Wing-Cheong Lo**, **Combined control evaluation for *Neospora caninum* infection in dairy: economic point of view coupled with population dynamic.** Veterinary Parasitology, 2020, 277, 108967.

22. Kristi E. Miller, **Wing-Cheong Lo**, Ching-Shan Chou and Hay-Oak Park, **Temporal regulation of cell polarity via the interaction of the Ras GTPase Rsr1 and the scaffold protein Bem1**. Molecular Biology of the Cell, 2019, 30(20):2543-2557.

21. Yue Liu and **Wing-Cheong Lo, Analysis of spontaneous emergence of cell polarity with delayed negative feedback**. Mathematical Biosciences and Engineering, 2019, 16(3):1392-1413.

20. **Wing-Cheong Lo** and Shaokun Mao, **A hybrid stochastic method with adaptive time step control for reaction-diffusion systems**. Journal of Computational Physics, 2019, 379, 392-402.

19. Danyun He, Qian Wang and **Wing-Cheong Lo, Mathematical analysis of macrophage-bacteria interaction in tuberculosis infection**. Discrete and Continuous Dynamical Systems-B, 2018, 23(8): 3387-3413.

18. Yanli Wang*, **Wing-Cheong Lo*** and Ching-Shan Chou, **A modeling study of budding yeast colony formation and its relationship to budding pattern and aging**. PLoS Computational Biology, 2017, 13(11): e1005843.   *Co-first author

17. Kristi E. Miller, **Wing-Cheong Lo**, Mid Eum Lee, Pil Jung Kang, and Hay-Oak Park, **Fine-tuning the orientation of the polarity axis by Rga1, a Cdc42 GTPase activating protein.** Molecular Biology of the Cell, 2017, 28(26):3773-3788.

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16. **Wing-Cheong Lo**, Violeta Arsenescu, Razvan I Arsenescu and Avner Friedman, **Inflammatory bowel disease: How effective is TNF-α suppression?** PLoS ONE, 2016, 11(11), e0165782

15. **Wing-Cheong Lo**, Likun Zheng and Qing Nie, **A hybrid continuous-discrete method for stochastic reaction-diffusion processes**. Royal Society Open Science, 2016, 3 (9), 160485

14. Jinzhi Lei*, **Wing-Cheong Lo***, Qing Nie, **Mathematical models of morphogen dynamics and growth control.** Annals of Mathematical Sciences and Applications, 2016, 1(2):427-471. *Co-first author

13. Shiv Ram Krishn, Sukhwinder Kaur,Lynette M. Smith,Sonny L. Johansson, Maneesh Jain, Asish Patel, Shailendra K. Gautam, Michael A. Hollingsworth, Ulla Mandel, Henrik Clausen, **Wing-Cheong Lo**, Wai-Tong Louis Fan, Upender Manne, Surinder K. Batra, **Mucins and associated glycan signatures in colon adenoma-carcinoma sequence: prospective pathological implication(s) for early diagnosis of colon cancer.** Cancer Letters, 2016, doi: 10.1016/j.canlet.2016.02.016.

12. Mid Eum Lee*, **Wing-Cheong Lo***, Kristi E. Miller, Ching-Shan Chou, and Hay-Oak Park, **Regulation of Cdc42 polarization by the Rsr1 GTPase and Rga1, a Cdc42 GTPase activating protein, in budding yeast.** Journal of Cell Science, 2015, 128, p.2106-2217.
*equal contribution to the work

11. **Wing-Cheong Lo**, Shaohua Zhou, Arthur D. Lander and Qing Nie, **Robust and precise morphogen-mediated patterning: tradeoffs, constraints and mechanisms.** Journal of Royal Society Interface, 2015, 12(102), 6, p 20141041.

10. **Wing-Cheong Lo**, Hay-Oak Park and Ching-Shan Chou, **Mathematical analysis of spontaneous emergence of cell polarity.** Bulletin of Mathematical Biology, 2014, 76(8):1835-65.

9. **Wing-Cheong Lo, Morphogen gradient with expansion-repression mechanism: steady-state and robustness studies**. Discrete and Continuous Dynamical Systems-B, 2014, 19(3):775 - 787.

8. **Wing-Cheong Lo**, Razvan I. Arsenescu and Avner Friedman, **Mathematical model of the roles of T cells in inflammatory bowel disease.** Bulletin of Mathematical Biology, 2013, 75(9): 1417-33.

7. **Wing-Cheong Lo***, Mid eum Lee*, Monisha Narayan, Ching-Shan Chou and Hay-Oak Park, **Polarization of diploid daughter cells directed by spatial cues and GTP hydrolysis of Cdc42 in budding yeast.** PLoS ONE, 2013;8(2):e56665.
*equal contribution to the work

6. **Wing-Cheong Lo**, Edward W. Martin Jr., Charles L. Hitchcock and Avner Friedman, **Mathematical model of colitis-associated colon cancer.** Journal of Theoretical Biology, 2013, 317:20-29.

5. **Wing-Cheong Lo**, Long Chen, Ming Wang and Qing Nie, **A robust and efficient method for steady state patterns in reaction-diffusion systems.** Journal of Computational Physics, 2012, 231(15):5062-5077.

4. Shaohua Zhou, **Wing-Cheong Lo**, Jeffrey Suhalim, Michelle A Digman, Enrico Gratton, Qing Nie and Arthur D. Lander, **Free extracellular diffusion creates the Dpp morphogen gradient of the *Drosophila* wing disc.** Current Biology, 2012, 22:668-675.

3. Ching-Shan Chou, **Wing-Cheong Lo**, Yong-Tao Zhang, Kimberly K. Gokoffski, Frederic Y.M. Wan, Arthur D. Lander, Anne L. Calof and Qing Nie, **Spatial dynamics of stem cells and multi-stage cell lineages in tissue stratification.** Biophysical Journal, 2010, 99(10):3145-54.

2. Arthur D. Lander, **Wing-Cheong Lo**, Qing Nie and Frederic Y.M. Wan, **The measure of success: constraints, objectives, and tradeoffs in morphogen-mediated patterning.** CSH Perspectives in Biology, 2009:a002022.

1. **Wing-Cheong Lo**, Ching-Shan Chou, Kimberly K. Gokofski, Frederic Y.M. Wan, Arthur D. Lander, Anne L. Calof and Qing Nie, **Feedback regulation in multistage cell lineages.** Mathematical Biosciences and Engineering, 2009, 6(1):59-82.

Theses

- **Wing-Cheong Lo*, Growth and Pattern Controls by Morphogen Gradients.** PhD Thesis, University of California, Irvine, 2011.
- **Wing-Cheong Lo, Analysis and Improvement of Total Variation Regularization.** MPhil Thesis, Hong Kong University of Science and Technology, 2006.

Teaching Experiences

- 2022/23 SemA, **Lecturer MA2185: Discrete Mathematics**, City University of Hong Kong (class size over 100)
- 2021/22 SemB, **Lecturer MA3524/3526: Analysis**, City University of Hong Kong
- 2021/22 SemA, **Lecturer MA0102: Basic Engineering Mathematics II**, City University of Hong Kong
- From 2016/17 SemA to 2019/20 SemB, 2019/20 Summer, **Lecturer GE1350: Essential Mathematics in Daily Life,** City University of Hong Kong (class size over 100)
- 2018/19-2023/24 SemA, **Lecturer MA1300: Enhanced Calculus and Basic Linear Algebra I,** City University of Hong Kong (class size over 100)
- 2015/16 SemB, 2016/17 SemB, 2022/23-2023/24 SemB, **Lecturer MA1301: Enhanced Calculus and Basic Linear Algebra II**, City University of Hong Kong
- 2015/16 SemA **Lecturer MA1200: Calculus and Basic Linear Algebra I,** City University of Hong Kong (class size over 100)
- 2014/15 SemB and 2020/21 SemB **Lecturer MA1201: Calculus and Basic Linear Algebra II,** City University of Hong Kong
- 2017/18 SemA, **Lecturer MA1006: Calculus and Linear Algebra for Business,** City University of Hong Kong (class size over 100)
- 2016/17 SemA, **Lecturer MA8001/8002: Seminars on Applied Mathematics I and II,** City University of Hong Kong

Graduate Student Supervision

Current
2023-2027   Supervisor
             Student: **Wang, Shuo** (PhD in Applied Mathematics)
2020-2024   Supervisor
             Student: **XIE, Jun** (PhD in Applied Mathematics)

Former
2019-2023   Supervisor
             Student: **LIANG, Qiantong** (PhD in Applied Mathematics)
             Thesis: Computational studies of pattern formation driven by stochastic effects of
             biological
2018-2021   Supervisor
             Student: **MU, Yu** (PhD in Applied Mathematics)
             Thesis: Dynamics of Microorganism Cultivation and Biological Populations:
             Stochastic, Delay and Impulsive Effects
2017-2021   Supervisor
             Student: **LIU, Yue** (PhD in Applied Mathematics)
             Thesis: Deterministic and Stochastic Analysis for the Spontaneous Emergence
             of Cell Polarity in Budding Yeast with Different Regulations

Undergraduate Final Year Project

Supervisor MA4530: Final Year Project, City University of Hong Kong

2022-2023 Student: **LO Chun Shing (Computing Mathematics)**
             Title: TBD
2022-2023 Student: **MOON Gyu Ri (Computing Mathematics)**
             Title: **Data-driven Study of Financial Products for Elderly
             (Co-supervised with Ms. Elizabeth Kwong - NOVA CREDIT LIMITED)**
2021-2022 Student: **LI Zhehao (Computing Mathematics)**
             Title: **Network-based modeling of population dynamics with wealth**
2020-2021 Student: **CHENG Kin Long Albert (Computing Mathematics)**
             Title: **Modeling Aquaponic System with Control of pH-value**
2019-2020 Student: **LI Shuai (Computing Mathematics)**
             Title: **Stochastic Effect on Th1/Th2 imbalance**
2018-2019 Student: **Woody Chan (Computing Mathematics)**
             Title: **Modeling Tuberculosis with population aging**
2017-2018 Student: **HE, Danyun (Computing Mathematics)**
             Title: **Mathematical Analysis of Chimeric Antigen Receptor (CAR) T-Cell
             Therapy in B-Cell Acute Lymphoblastic Leukemia**
2016-2017 Student: **MAO, Shaokun (Computing Mathematics)**
             Title: **Stochastic Simulation of Biological Patterns**
2015-2016 Student: **WANG, Qian (Computing Mathematics)**
             Title: **The War inside Our Body: Mathematical Model for the Human
             Immune Response to Bacterial Infection**

Research Funding Awards

2022-2024 **CityU Strategic Research Grant (PI)**: Modeling and Analyzing Cellular Quiescence and Aging in Cell Lineage

2021-2024 **HKRGC General Research Fund (PI)**: Stochastic Modeling of the Spatial Transmissions of Viruses and Defective Interfering Particles, HK$347,007

2020-2022 **CityU Strategic Research Grant (PI)**: Mathematical Analysis of the Continuous-time Dynamical Model on the Control of *Neospora Caninum* in Dairy Cattle with the Cost Constraint

2019-2021 **CityU Strategic Research Grant (PI)**: A Mathematical Study of Optimal Combined Control of *Neospora Caninum* in Dairy Cattle

2018-2021 **CityU Strategic Research Grant (PI)**: Mathematical Modeling on Cell Aging and Damage Segregation

2017-2021 **HKRGC General Research Fund (PI)**: Mathematical Study on Cell Polarization and Morphological Regulation, HK$314,900

2015-2019 **HKRGC Early Career Scheme (PI)**: Stochastic Modeling of Patterning and Growth Control in the Development of Multicellular Organisms, HK$537,700

Teaching Funding Awards

2021-2023 **UGC Special Grant for the Development of Virtual Teaching and Learning (Co-PI)**: Developing e-Mathematical Help Centre for e-Learning and e-Teaching of Fundamental Mathematical Courses via Modern Digital Technologies, HK$1.0522M

2021-2022 **CityU Teching Development Grant (Co-I)**: Continuous and Direct Close-loop Assessment for OBTL Based Programme and Course Improvement and Management, HK$199,925

Awards and Honors

Departmental level

2011   Kovalevsky Award for Best Thesis, Department of Mathematics, UC Irvine

2008 – 2009 Von Neumann Award for Outstanding Performance as a Graduate Student, Department of Mathematics, UC Irvine

2008   Research Opportunity Award of Center for Complex Biological System, UC Irvine (with S. Zhou, Dev & Cell Biology Dept. UCI)
(Proposal: A domain growth model of how Dpp gradient controls the wing disc growth, considering mechanical stress)

2007   Research Opportunity Award of Center for Complex Biological System, UC Irvine (with S. Zhou, Dev & Cell Biology Dept. UCI)
(Proposal: Reducing noise by PI3Kinase**)**

2006 – 2007 Euler Award for Outstanding Promise as a Graduate Student, Department of Mathematics, UC Irvine

2005 – 2006 Honorably-mentioned Teaching Assistant, Department of Mathematics, Hong Kong University of Science and Technology

University level

2004 – 2006 Postgraduate Studentship, Hong Kong University of Science and Technology

2002 – 2003 University Scholarships, Hong Kong University of Science and Technology

2001 – 2002 Jebsen Educational Foundation Scholarships for Hong Kong University of Science and Technology/Hong Kong Institute of Education Joint Program

Professional Activities

Internal services

2023 – 2024 Organizing team for CityU STEAM Challenge

2022 – Student Affairs Coordinator for College of Science at CityU

2015- 2022 Year Tutor for CityU BS(Computing Mathematics) programme

2017 – BS(Computing Mathematics) Admission coordinator

2015 – Staff Member of Joint Staff/Student Consultative Committee

2018 – Director of Mathematics Help Center

External activities

2023 Sept Research Report Reviewer in Hang Lung Mathematics Awards

2023 Aug Organizer for Mini-symposia in 10th International Congress on Industrial and Applied Mathematics, Tokyo, Japan
- **Computational Modeling on Biomedical Diseases**

2023 July Organizer for Mini-symposia in the Society for Mathematical Biology Annual Meeting and Conference 2023, Columbus, Ohio
- **Computational models for developmental and cell biology: A celebration of the works of Prof. Ching-Shan Chou**
- **Data-driven modeling and model calibration in biology**

2021 Sept Research Report Reviewer in Hang Lung Mathematics Awards

2021 July Judge of City I&T Grand Challenge, by Hong Kong Science & Technology Parks Corporation

2021 Jan   **Judging Panelist of Tomorrow's Scientists Exploration Camp, The Council of the Hong Kong Laureate Forum**

2018- 2021   **Member of DSE Math Subject Committees, Hong Kong Examination and Assessment Authority**

2016 May   **Organizer for MathBio Session in** International Conference on Applied Mathematics 2016, CityU, Hong Kong

2013 Aug   **Lead Organizer,** 2013 Workshop for Young Researchers in Mathematical Biology, Mathematical Biosciences Institute, The Ohio State University, Columbus, OH

External Advisory Appointment

2022-   **Advisor,** AI-Guided Ltd

2019-2021   **HKDSE Mathematics Subject Committee Member,** Hong Kong Examinations and Assessment Authority (HKEAA)

Public Science Talks

2023 Dec   Science Talk for the CityU visit of St. Francis' Canossian College
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2023 Nov   Science Talk at Homantin Government Secondary School
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2023 Nov   Science Talk at Stewards Pooi Kei Primary School
"Origami and Mathematics 摺出數學世界"

2023 Oct   Science Talk at Kiangsu-Chekiang College (Kwai Chung)
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2023 Oct   Workshop at Yan Chai Hospital No.2 Secondary School
"Origami and Mathematics 摺出數學世界"

2023 Sept   Science Talk for 科學為民 服務巡禮 Science in the public Service at Hong Kong Science Museum
"Origami and Mathematics 摺出數學世界"

2023 Aug   CityU-Learning Classroom for Secondary School Students
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2023 May   Popular Science Talk by College of Science at Chinese YMCA College
"Rand:從骰子開始的數學世界"

2023 April   Popular Science Talk by College of Science at CCC Kei Long College
"數算生命：從數列遊戲到理論生物學"

2023 Mar   Science Talk at Teachers' Development Day@CityU
"Maths in the Courtroom: How Computing Mathematics is Intertwined with the Law Profession?"

2023 Mar   Science Talk at SKH Bishop Baker Secondary School
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2023 Mar   Science Talk at Ching Chung Hau Po Woon Secondary School
"Rand:從骰子開始的數學世界"

2023 Feb   Science Talk at S.T.F.A. Lee Shau Kee College
"數算生命：從數列遊戲到理論生物學"

2022 Nov   Science Talk at CCC Heep Woh College
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2022 Nov   Science Talk for the CityU visit of NLSI Lui Kwok Pat Fong College
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2022 Nov   Science Talk at Homantin Government Secondary School
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2022 Oct   Science Talk at CCC Ming Kei College
"Rand:從骰子開始的數學世界"

2022 Oct   Science Talk at Homantin Government Secondary School
"數算生命：從數列遊戲到理論生物學"

2022 Aug   CityU-Learning Classroom for Secondary School Students
"Turnabout: Math in Courtroom 逆轉法庭: 法庭裏的數學"

2022 Mar   Science Talk at CNEC Christian College
"數算生命：從數列遊戲到理論生物學"

2021 Dec   Science Talk at CCC Kei Heep Secondary School
"Rand:從骰子開始的數學世界"

2021 Nov   Science Talk at TWGHs Kwok Yat Wai College
"Rand:從骰子開始的數學世界"

2021 Oct   Online Science Talk at TWGHs Li Ka Shing College
"Rand:從骰子開始的數學世界"

2020 Oct   CityU Virtual Information Day
"Rand:從骰子開始的數學世界 Part 2"

2019 Mar   Science Talk at Yan Chai Hospital No.2 Secondary School
"Rand:從骰子開始的數學世界"

2018 Feb   Science Talk at the Chinese Foundation Secondary School
"數算生命：從數列遊戲到理論生物學"

Seminar/Colloquium/Invited Conference Talks

2023 Aug   10th International Congress on Industrial and Applied Mathematics, Tokyo, Japan
"Transmission dynamics of Tuberculosis with age-specific disease progression"

2023 July   The Society for Mathematical Biology Annual Meeting and Conference 2023, Columbus, Ohio
"Modeling COVID-19 Transmission Dynamics With Self-Learning Population Behavioral Change"

2023 July   CityU Science Summer Camp 2022
"Modeling COVID-19 Transmission Dynamics With Self-Learning Population Behavioral Change"

2022 July   CityU Science Summer Camp 2022
"Mathematical Modeling of Biological Pattern Formation"

2021 Jun   The Society for Mathematical Biology Virtual Annual Meeting 2021,
"Deterministic and stochastic analysis for the spontaneous emergence of cell polarity in budding yeast"

2020 Aug   Math Seminar at CityU
"Mathematical Modeling of Biological Pattern Formation"

2020 May   Math Workshop in International Mathematics Modeling Competition (IMMC 2020)
"Game of Life – from a simple game to real life applications"

2019 July   The Society for Mathematical Biology Annual Meeting and Conference 2019, Montreal, Canada
"Modeling immune system in application to studying inflammatory bowel disease"

2019 July   The Society for Mathematical Biology Annual Meeting and Conference 2019, Montreal, Canada
"Modeling immune system in application to studying inflammatory bowel disease"

2019 June   The 8th International Congress of Chinese Mathematicians 2019, Beijing
"Modeling Morphogen-mediated Patterning and Growth Control"

2019 May   The 5th International Conference on Computational and Mathematical Population Dynamics, Florida, US
"Modeling cell polarization in budding yeast"

2018 Dec   第一届数学生命科学大会暨中国工业与应用数学学会（CSIAM）数学生命科学分会成立大会
"Modeling immune system in application to studying inflammatory bowel disease and TB infection"

2018 Jul   12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Taipei
"The Link between Cell Polarization and Colony Formation in Budding Yeast"

2018 Jun   6th International Conference on Mathematical Biology, Beijing
"Modeling immune system in application to studying inflammatory bowel disease and TB infection"

2018 May   The Hong Kong Mathematical Society Annual General Meeting 2018
"Hybrid numerical tool for stochastic morphogen-mediated patterning system"

2018 Jan   PDE seminar of Department of Mathematics, Southern University of Science and Technology, China
"PDE Models of Morphopen Dynamics and Growth Control"

2017 May   The Hong Kong Mathematical Society Annual General Meeting 2017
"Modeling of Budding Yeast: from Single Cell to Population Development"

2016 Nov   The 3rd Joint CityU-NCU Workshop on Applied Mathematics, CityU, Hong Kong
"Analysis and numerical tool for stochastic morphogen-mediated patterning system"

2016 Jul   2016 SIAM Conference on the Life Sciences, Boston, MA, USA
"Stochastic Modeling Yeast Cell Polarization: from Cell Budding to Population Development"

2016 May   International Conference on Applied Mathematics 2016, CityU, Hong Kong
"Modeling Yeast Cell Polarization: from Cell Budding to Population Development"

2015 Aug   Workshop on PDE Problems Arising From Biology and Related Area, PolyU, Hong Kong
"Pattern in a Cell: Modeling Cell Polarization in Budding Yeast "

2015 Aug   The 8th International Congress on Industrial and Applied Mathematics, Beijing
"Robust and Precise Morphogen-mediated Tissue Patterning"

2015 May   The Hong Kong Mathematical Society Annual General Meeting 2015
"**Pattern in a Cell: Modeling Cell Polarization in Budding Yeast** "

2015 Apr   Workshop on Computational and Applied Mathematics, Department of
Mathematics, City University of Hong Kong, Hong Kong
"**Robust and Precise Morphogen-mediated Tissue Patterning** "

2014 Feb   Colloquium, Department of Mathematics and Statistics, University of Melbourne,
Australia
"**Feedback Controls in Biological Spatial Dynamics**"

2014 Jan   Colloquium, Department of Applied and Computational Mathematics and
Statistics, University of Notre Dame, US
"**Feedback Controls in Biological Spatial Dynamics**"

2014 Jan   Postdoc Seminar, Mathematical Biosciences Institute, The Ohio State University,
Columbus, OH, US
"**Feedback Controls in Biological Spatial Dynamics**"

2013 Dec   Seminar, Department of Mathematics, City University of Hong Kong, Hong Kong
"**Feedback Controls in Biological Spatial Dynamics**"

2013 Oct   Seminar on Applied Mathematics, University of California, California, US
"**Cell Polarization and Pattern Formation in Biological Systems**"

2013 Oct   An International Conference on PDEs and Dynamical Systems in Biology,
Bar-Ilan University, Ramat Gan, Israel.
"**Analysis and Modeling of Cell Polarization in Budding Yeast**"

2013 Jun   2013 Annual Meeting of the Society for Mathematical Biology, Arizona State
University, Tempe, AZ, US
"**Mathematical Model of the Roles of T Cells in Inflammatory Bowel
Disease**"

2013 Apr   Postdoc Seminar, Mathematical Biosciences Institute, The Ohio State University,
Columbus, OH, US
"**Analysis and Modeling of Cell Polarization in Budding Yeast**"

2012 Jul   The 9th AIMS conference on Dynamical Systems, Differential Equations and
Applications, Orlando, FL, US
"**Robust Budding Site Selection and Cell Polarization in Yeast Cells**"

2012 Apr   The Eighth International Conference on Scientific Computing and Applications
(SCA2012), Las Vegas, NV, US
"**A Robust and Efficient Method for Steady State Patterns in
Reaction-Diffusion Systems**"

2012 Mar   Seminar on Applied Mathematics, Hong Kong University of Science and

Technology, Hong Kong
"Robust Growth and Pattern Controls in Biological Systems"

2012 Jan   Postdoc Seminar, Mathematical Biosciences Institute, The Ohio State University, Columbus, OH, US
"Feedback Regulation and Spatial Control of Multistage Cell Lineages"