# Tao Wen

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https://taaowen.github.io/ (Last updated: July 22, 2024)

### **EDUCATION**

Integrated PhD and MSc in Data Analytics and Society (funded by ESRC Centre for	2025
Doctoral Training in Data Analytics and Society)	
Advisor: Prof. Yu-wang Chen and Associate Prof. Tahir Abbas Syed	
University of Manchester, Manchester, UK	
MEng. (Research) in <i>Science, Mathematics &amp; Technology</i> (funded by <b>SUTD Fellowship</b> ) Advisor: Associate Prof. Kang Hao Cheong	9/2021
Singapore University of Technology and Design (SUTD), Singapore	
B. S. in System Engineering	6/2019
Advisor: Prof. Yong Deng and Prof. Wen Jiang	
Northwestern Polytechnical University (NWPU), Xi'an, China	

#### RESEARCH INTERESTS

•	AI & Machine Learning	<ul><li>Game Theory</li></ul>	<ul> <li>Data Analytics on Misinformation</li> </ul>
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Network Science
 Fractal Property
 Decision Science and Decision Analysis

#### **TEACHING & SUPERVISION**

# Teaching Assistant

• AI and Machine Learning: Business Application (5K7V0024, MSc Level)	Spring 2023
Led by Dr. Ting Wu, Manchester Metropolitan University.	
<ul> <li>Programming in Python for Business Analytics (BMAN73701, MSc Level)</li> </ul>	Fall 2022
Led by Prof. Richard Allmendinger & Associate Prof. Manuel Lopez-Ibanez, UoM.	
<ul> <li>Modelling Space and Systems (10.018, BSc Level)</li> </ul>	Spring 2020
Led by Associate Prof. Kang Hao Cheong, SUTD.	
MSc Dissertation Co-supervision	
Vania Faustanta, Dhruv Nilesh Kapadia, Frederick Ching Fung Ling	2024
• Tony Mathew Abraham (MS student @ UoM → JLR, <u>Dean's Award</u> )	2023
<ul> <li>Elena Narang (MS student @ UoM → IOM, UN Migration)</li> </ul>	2023

# SELECTED PUBLICATIONS (\*: equal contributions)

See the full list in Google Scholar (citation: 1000+, h-index: 18)

- [1] **Tao Wen**, Kang Hao Cheong (2024). Parrondo's Paradox Reveals Counterintuitive Wins in Biology and Decision Making in Society. In *Physics of Life Reviews*. (Accepted)
- [2] **Tao Wen**, Yu-wang Chen, Tahir Abbas Syed, Ting Wu (2024). ERIUE: Evidential Reasoning-based Influential Users Evaluation in Social Networks. In *Omega* (Grade 3 journal in ABS list). [Link]
- [3] **Tao Wen**, Jinde Cao, Kang Hao Cheong (2023). Gravity-based Community Vulnerability Evaluation Model in Social Networks: GBCVE. In *IEEE Transactions on Cybernetics* (Grade 3 journal in ABS list). [Link]
- [4] **Tao Wen**, Kang Hao Cheong, Joel Weijia Lai, Jin Ming Koh, Eugene V. Koonin (2022). Extending the Lifespan of Multicellular Organisms via Periodic and Stochastic Intercellular Competition. In *Physical Review Letters* (The Highest Impact Letter in Physics). [Link, Code]
- [5] Kang Hao Cheong\*, **Tao Wen**\*, Sean Benler, Jin Ming Koh, Eugene V. Koonin (2022). Alternating Lysis and Lysogeny is a Winning Strategy in Bacteriophages due to Parrondo's Paradox. In *Proceedings of the National Academy of Sciences*. [Link, Code]
- [6] **Tao Wen**, Qiuya Gao, Yu-wang Chen, Kang Hao Cheong (2022). Exploring the Vulnerability of Logistics Networks by Entropy: An Asia-Europe Maritime Transportation Network Case Study. In *Reliability Engineering & System Safety* (Grade 3 journal in ABS list). [Link]

- [7] **Tao Wen**, Kang Hao Cheong (2021). The Fractal Dimension of Complex Networks: A Review. In *Information Fusion* (ESI 1% Highly Cited Paper 2). [Link, 150+ citations]
- [8] Qiuya Gao, **Tao Wen**, Yong Deng (2021). Information Volume Fractal Dimension. In *Fractals* (ESI 0.1% Hot Paper → & ESI 1% Highly Cited Paper ♥). [Link]
- [9] **Tao Wen**, Yong Deng (2020). The Vulnerability of Community Structure in Complex Networks: An Entropy Approach. In *Reliability Engineering & System Safety* (ESI 1% Highly Cited Paper , Grade 3 journal in ABS list). [Link]
- [10] **Tao Wen**, Yong Deng (2020). Identification of Influencers in Complex Network by Local Information Dimensionality. In *Information Sciences* (ESI 1% Highly Cited Paper \*). [Link, 100+ citations]
- [11] Kang Hao Cheong, **Tao Wen**, Joel Weijia Lai (2020). "Relieving Cost of Epidemic by Parrondo's Paradox: A COVID-19 Case Study," In *Advanced Science*. [Link, Press]

## Paper in the pipeline

- [1] **Tao Wen**, Yu-wang Chen, Jie Zhao, Yong-Yeol Ahn, Kang Hao Cheong. Early-stage Localization of Information Propagation Sources via Generalized Bayesian Inference in Large-scale Social Networks. Submitted to *Nature Computational Science* under consideration.
- [2] **Tao Wen**, Rui Zheng, Yu-wang Chen, Zeyi Liu, Ting Wu, Mi Zhou, Tahir Abbas Syed, Darminder Ghataoura. Formulating Opinion Dynamics from Belief Formation, Diffusion and Updating in Social Network Group Decision Making: A Holistic Framework. Submitted with invitation from Editor-in-chief to *European Journal of Operational Research* under consideration.
- [3] **Tao Wen**, Yu-wang Chen, Renaud Lambiotte. Collective Effect of Self-learning and Social Learning on Language Dynamics: A Naming Game Approach in Social Networks. Submitted to *Journal of the Royal Society Interface* under consideration.

### SELECTED FELLOWSHIP & AWARDS

■ The Chinese Government Award for Outstanding Self-financed Students Abroad ( <b>Highest</b> government award for overseas Chinese PhD students)	2024
■ The Turing Scheme	2024
■ Enrichment Scheme Placement Award at The Alan Turing Institute (Up to 55 awardees who are engaging in AI/ML across the UK)	2023
<ul> <li>Excellent Paper Award of 5th China and UK Forum of International Young Scholars in Manchester</li> </ul>	2023
<ul> <li>Turing Exchange Fellowship</li> </ul>	2022
<ul> <li>Excellent Paper Award of International Postgraduate Interdisciplinary Forum on Smart Shipping and Green Future</li> </ul>	2022
<ul> <li>Decision and Cognitive Sciences Research Centre Support Fund</li> </ul>	2022
■ ESRC Funded Integrated PhD and MSc in Data Analytics and Society Scholarship	2021
■ SUTD MEng (Research) Fellowship	2020
■ The "Challenge Cup" National Undergraduate Extracurricular Academic Science and Technology Contest: <b>Special First Prize</b> ( <b>Top 4%</b> )	2019
<ul> <li>Outstanding Student Pacemaker in NWPU (TOP 0.1%, only 10 awardees among more than 12,000 undergraduates)</li> </ul>	2018
■ China National Scholarship	2018

## RESEACH EXPERIENCE

**Data Analytics for Addressing Fake News and Deepfakes in Social Networks** 9/2021 - Present UoM (PhD project), Advisor: Prof. Yu-wang Chen and Associate Prof. Tahir Abbas Syed

Temporal dynamics of belief networks

7/2024 - 8/2024

Indiana University Bloomington (Funded by The Turing Scheme), Advisor: Prof. Yong-Yeol Ahn

**Data-driven Modelling and Analysis of Opinion and Decision Dynamics** 1/2024 - 7/2024 The Alan Turing Institute (2023 Enrichment Scheme)

**Quantifying Impact of Social Influence on Language Dynamics** 

2/2023 - 1/2024

University of Oxford (Funded by Turing Exchange Fellowship), Advisor: Prof. Renaud Lambiotte

Studying Economic Growth and Environmental Sustainability through Cooperation 5/2022 - 9/2022 University of Manchester, Advisor: Prof. Yu-wang Chen and Dr. Ting Wu

Singapore University of Technology and Design, Advisor: Associate Prof. Kang Hao Cheong Finding Important Properties of Nodes and Communities in Complex Networks 6/2019 - 9/2019 University of Electronic Science and Technology of China, Advisor: Prof. Yong Deng Exploring the Properties of Networks by Different Dimensions 5/2016 - 6/2019 Northwestern Polytechnical University, Advisor: Prof. Wen Jiang and Prof. Yong Deng **PRESENTATIONS**  Conference on Complex Systems 2024, Exeter, UK. 9/2024 Oral – Early-stage Inference of Misinformation Propagation Sources. 29th International Conference on Automation and Computing, Sunderland, UK. 8/2024 Oral – Forecasting Time Series through Motif Structure Analysis within Visibility Graph. NetSci 2024, Québec City, Canada. 6/2024 Oral – Collective Effect of Social Behaviors on Language Dynamics in Social Networks. Networks and Time II, Northeastern University London, London, UK. 4/2024 Oral - Collective Effect of Social Behaviors on Language Dynamics in Social Networks. Data Natives, City, University of London, London, UK. 4/2024 Oral – Collective Effect of Social Behaviors on Language Dynamics in Social Networks. PhD Student Presentations and Networking, The Alan Turing Institute, London, UK. 3/2024 Oral – Collective Effect of Social Behaviors on Language Dynamics in Social Networks. 5th China and UK Forum of International Young Scholars in Manchester, Manchester, UK. 6/2023 Oral – Exploring the Vulnerability of Logistics Networks by Entropy. • Postgraduate Summer Research Showcase, UoM, Manchester, UK. 6/2023 Poster – Examining Communication Network Behaviors, Structure and Dynamics. Advances in Data Science and AI Conference, Manchester, UK. 6/2023 Oral – Examining Communication Network Behaviors, Structure and Dynamics. Brown Bag Seminar on Fintech & Digital Transformation, UoM, Manchester, UK. 5/2023 Talk – Examining Communication Network Behaviors, Structure and Dynamics. International Postgraduate Interdisciplinary Forum on Smart Shipping and Green Future. 9/2022 Oral – Exploring the Vulnerability of Logistics Networks by Entropy. 4th China and UK Forum of International Young Scholars in Manchester, Manchester, UK. 6/2022 Oral – Analysis of Fractal Characteristics of Complex Networks and Its Application. 26<sup>th</sup> International Conference on Multiple Criteria Decision Making, Portsmouth, UK. 6/2022 Oral – Evidential Reasoning-based Influential Users Evaluation in Social Networks Oberseminar Dynamics Seminar, Technical University of Munich, Online. 5/2021 *Invited talk* – Analysis of Fractal Properties of Complex Networks and Its Application. Ao Xiang Students Lecture, Northwestern Polytechnical University, Xi'an, China. 12/2019 *Invited talk* – Analysis of Fractal Properties of Complex Networks and Its Application. 9th China Information Fusion Conference, Taiyuan, China. 7/2019 Oral – Forecasting Time Series based on Visibility Graph and Relative Entropy.

1/2020 - 9/2021

## **SERVICES**

- Assist in organizing Decision and Cognitive Sciences Research Centre seminars.
- Special Issue Editor on Mathematics (Data-driven Decision Making: Models, Methods and Applications).

# Journal Reviewer

- Communications Physics
- Chaos: An Interdisciplinary Journal of Nonlinear Science

Analyzing Parrondo's Paradox Phenomenon and its Applications

- Humanities & Social Sciences Communications
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Network Science and Engineering
- IEEE Transactions on Signal and Information Processing over Networks
- International Journal of Intelligent Systems
- Journal of Computational Science
- Physica A: Statistical Mechanics and Its Applications
- Reliability Engineering & System Safety
- Scientific Reports
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Tao Wen 3 of 4 July 22, 2024

# **■ Program Committee Member**

• 2024: NeurIPS, NetSci

### **SOCIAL ACTIVITIES**

• Volunteer | International Conference on Intelligent Unmanned Systems

2018

Volunteer | Northwestern Polytechnical University 80th Anniversary

2018

### **KEY SKILLS**

Technology: Python, MATLAB, R language, C language, LaTeX, Gephi, Origin, UCINET, MPNet. Languages: Mandarin, English.

# **REFERENCES**

# Prof. Dr. Yu-Wang Chen

Alliance Manchester Business School University of Manchester Manchester, UK

Yu-wang.Chen@manchester.ac.uk

# Associate Prof. Dr. Tahir abbas Syed

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# Prof. Dr. Richard Allmendinger

Alliance Manchester Business School

University of Manchester Manchester, UK

Richard.Allmendinger@manchester.ac.uk

# Associate Prof. Dr. Kang Hao Cheong

College of Computing and Data Science School of Physical and Mathematical Sciences Nanyang Technological University Singapore

kanghao.cheong@ntu.edu.sg

#### FULL PUBLICATIONS LIST (\*: equal contributions)

#### 2024

- [1] Parrondo's Paradox Reveals Counterintuitive Wins in Biology and Decision Making in Society. **Tao Wen**, Kang Hao Cheong. In *Physics of Life Reviews*.
- [2] ERIUE: Evidential Reasoning-based Influential Users Evaluation in Social Networks. **Tao Wen**, Yu-wang Chen, Tahir Abbas Syed, Ting Wu. In *Omega*. (<u>Grade 3 journal</u>)
- [3] How Flexible Parasites Can Outsmart Their Hosts for Evolutionary Dominance. **Tao Wen**, Eugene V. Koonin, Kang Hao Cheong. In *Physical Review Research*.
- [4] Cooperation-guided Experts Importance Identification Model with Fuzzy Framework: A Network Design.
  - Zeyi Liu\*, **Tao Wen**\*, Yong Deng, Hamido Fujita. In *IEEE Transactions on Emerging Topics in Computational Intelligence*.
- [5] Parrondo's Paradox in Network Communication: A Routing Strategy.

  Ankit Mishra, **Tao Wen**, Kang Hao Cheong. In *Physical Review Research*.
- [6] Efficient Traffic Management in Networks with Limited Resources: The Switching Routing Strategy.

Ankit Mishra, Tao Wen, Kang Hao Cheong. In Chaos, Solitons and Fractals.

#### 2023

- [7] Gravity-based Community Vulnerability Evaluation Model in Social Networks: GBCVE. **Tao Wen**, Jinde Cao, Kang Hao Cheong. In *IEEE Transactions on Cybernetics*. (Grade 3 journal)
- [8] Switching between Two Losing Stocks may Enable Paradoxical Win: An Empirical Analysis. **Tao Wen**, Joel Weijia Lai, Kang Hao Cheong. In *Fractals*.
- [9] Multi-Objective Squirrel Search Algorithm for EEG Feature Selection. Chao Wang, Songjie Li, Miao Shi, Jie Zhao, **Tao Wen**, U. Rajendra Acharya, Neng-gang Xie, Kang Hao Cheong. In *Journal of Computational Science*.

### 2022

- [10] Extending the Lifespan of Multicellular Organisms via Periodic or Stochastic Intercellular Competition.
  - **Tao Wen**, Kang Hao Cheong, Joel Weijia Lai, Jin Ming Koh, Eugene V. Koonin. In *Physical Review Letters*. (The Highest Impact Letter in Physics) [Code]
- [11] Alternating Lysis and Lysogeny is a Winning Strategy in Bacteriophages due to Parrondo's Paradox.
  - Kang Hao Cheong\*, **Tao Wen**\*, Sean Benler, Jin Ming Koh, Eugene V. Koonin. In *Proceedings of the National Academy of Sciences*. [Code]
- [12] Exploring the Vulnerability of Logistics Networks by Entropy: An Asia-Europe Maritime Transportation Network Case Study.
  - **Tao Wen**, Qiuya Gao, Yu-wang Chen, Kang Hao Cheong. In *Reliability Engineering & System Safety*. (Grade 3 journal)
- [13] A Review of Predator-Prey Systems with Dormancy of Predators.
  - **Tao Wen**, Qiuya Gao, Tamás Kalmár-Nagy, Yong Deng, Kang Hao Cheong. In *Nonlinear Dynamics*.
- [14] Visibility Graph for Time Series Prediction and Image Classification: A Review. **Tao Wen**, Huiling Chen, Kang Hao Cheong. In *Nonlinear Dynamics*.
- [15] The Random Walk-based Gravity Model to Identify Influential Nodes in Complex Networks. Jie Zhao, **Tao Wen**, Hadi Jahanshahi, Kang Hao Cheong. In *Information Sciences*.
- [16] A Novel Network-based and Divergence-based Time Series Forecasting Method. Qiuya Gao, **Tao Wen**, Yong Deng. In *Information Sciences*.

### 2021

- [17] The Fractal Dimension of Complex Networks: A Review.
  - Tao Wen, Kang Hao Cheong In Information Fusion. (150+ citation, ESI 1% Highly Cited Paper)
- [18] An Alternating Active-dormitive Strategy Enables Disadvantaged Prey to Outcompete the Perennially Active Prey through Parrondo's Paradox.
  - Tao Wen, Eugene V. Koonin, Kang Hao Cheong. In BMC Biology.
- [19] Information Volume Fractal Dimension.

- Qiuya Gao, **Tao Wen**, Yong Deng. In *Fractals*. (ESI 0.1% Hot Paper & ESI 1% Highly Cited Paper)
- [20] Game Dynamics of Emotion Evolution based on the Moran Process.
  Yayun Dai, Guangjie Zhan, Ye Ye, Wei Bao, **Tao Wen**, Kang Hao Cheong, Nenggang Xie. In *Chaos: An Interdisciplinary Journal of Nonlinear Science*.
- [21] Automatic COVID-19 Detection using Exemplar Hybrid Deep Features with X-ray Images. Prabal Datta Barua, Nadia Fareeda Muhammad Gowdh, Kartini Rahmat, Norlisah Ramli, Wei Lin Ng, Wai Yee Chan, Mutlu Kuluozturk, Sengul Dogan, Mehmet Baygin, Orhan Yaman, Turker Tuncer, **Tao Wen**, Kang Hao Cheong, U. Rajendra Acharya. In *International Journal of Environmental Research and Public Health*.

#### 2020

- [22] Relieving Cost of Epidemic by Parrondo's Paradox: A COVID-19 Case Study. Kang Hao Cheong, **Tao Wen**, Joel Weijia Lai. In *Advanced Science*. (Press)
- [23] Vital Spreaders Identification in Complex Networks with Multi-Local Dimension. **Tao Wen**, Danilo Pelus, Yong Deng. In *Knowledge-Based Systems*.
- [24] The Vulnerability of Community Structure in Complex Networks: An Entropy Approach.

  Tao Wen, Yong Deng. In *Reliability Engineering & System Safety*. (ESI 1% Highly Cited Paper, Grade 3 journal)
- [25] Identification of Influencers in Complex Network by Local Information Dimensionality. **Tao Wen**, Yong Deng. In *Information Sciences*. (100+ citations, ESI 1% Highly Cited Paper)
- [26] Node Similarity Measuring in Complex Networks with Relative Entropy. **Tao Wen**, Shuyu Duan, Wen Jiang. In Communications in Nonlinear Science and Numerical Simulation.
- [27] Identifying Influential Nodes based on Fuzzy Local Dimension in Complex Networks. **Tao Wen**, Wen Jiang. In *Chaos*, *Solitons & Fractals*.
- [28] Measuring the Complexity of Complex Network by Tsallis Entropy. **Tao Wen**, Wen Jiang. In *Physica A: Statistical Mechanics and Its Applications*.
- [29] A New Information Dimension of Complex Network based on Rényi Entropy. Shuyu Duan, **Tao Wen**, Wen Jiang. In *Physica A: Statistical Mechanics and Its Applications*.

#### 2018

- [30] Evaluating Topological Vulnerability based on Fuzzy Fractal Dimension. **Tao Wen**, Moxian Song, Wen Jiang. In *International Journal of Fuzzy Systems*.
- [31] An Information Dimension of Weighted Complex Networks. **Tao Wen**, Wen Jiang. In *Physica A: Statistical Mechanics and Its Applications*.

#### Conference paper

- [1] Evidential Reasoning-based Early-stage Inference of Information Propagation Source in Large-scale Social Networks. (Abstract) **Tao Wen**, Yu-wang Chen. In *Conference on Complex Systems*, Exeter, UK, September 2024.
- [2] Forecasting Time Series through Motif Structure Analysis within Visibility Graph. **Tao Wen**, Yu-wang Chen. In 29th International Conference on Automation and Computing, Sunderland, UK, August 2024.
- [3] Evidential Reasoning-based Inference of Early-stage Information Propagation Source in Large-scale Social Networks. (Abstract) Yu-wang Chen, Tao Wen. In 33rd European Conference on Operational Research, Copenhagen, Denmark, July 2024.
- [4] Data Analytics for the Impact of Renewable Energy on Decoupling Economic Growth from Carbon Emissions. (Abstract) Ting Wu, Tao Wen, Yu-wang Chen. In 33rd European Conference on Operational Research, Copenhagen, Denmark, July 2024.
- [5] Exploring the Effect of Social Behaviors on Language Dynamics in Social Networks. (Abstract) **Tao Wen**, Yu-wang Chen, Renaud Lambiotte. In *NetSci* 2024, Québec City, Canada, June 2024.
- [6] Characterising Decision Making in Social Networks with Belief Diffusion and Updating. (Abstract) Yu-wang Chen, Tao Wen, Ting Wu. In 27th International Conference on Multiple Criteria

- Decision Making, Hammamet, Tunisia, June 2024.
- [7] Analysing Communication Network Structure and Dynamics in an Organizational Hierarchy. (Abstract)
  - Yu-wang Chen, **Tao Wen**. In 23rd Conference of the International Federation of Operational Research Societies. Santiago, Chile, July 2023.
- [8] Analyzing Communication Patterns and Dynamics in an Organizational Hierarchy through Social Network Analysis. (Abstract)
  - **Tao Wen**, Yu-wang Chen, Tahir Abbas Syed. In *Advances in Data Science and AI Conference* 2023. Manchester, UK, June 2023.
- [9] Ranking Influential Users in Social Networks by the Evidential Reasoning Algorithm. (Abstract) **Tao Wen**, Yu-wang Chen, Tahir Abbas Syed. In *26th International Conference on Multiple Criteria Decision Making*. Portsmouth, UK, June 2022.
- [10] Forecasting Time Series based on Visibility Graph and Relative Entropy. (In Chinese) **Tao Wen**, Shuyu Duan, Wen Jiang. In *The Ninth Chinese Information Fusion Conference*,
  Taiyuan, China, Oct. 2019.
- [11] Identifying Influential Nodes based on Tsallis Entropy and Information Dimension. (In Chinese) Shuyu Duan, **Tao Wen**, Xinyang Deng, Wen Jiang. In *The Ninth Chinese Information Fusion Conference*, Taiyuan, China, Oct. 2019.
- [12] A Physarum-inspired Model for the Path Planning of Uninhabited Combat Air Vehicle. (In Chinese)

  Shugi Yu, Zichang Ha, Teo Wan, Wan, Jiang In The Fighth Chinese Information Fusion
  - Shuai Xu, Zichang He, **Tao Wen**, Wen Jiang. In *The Eighth Chinese Information Fusion Conference*, Xi'an, China, July 2018.

# Paper in the pipeline

- [1] Early-stage Localization of Information Propagation Sources via Generalized Bayesian Inference in Large-scale Social Networks.
  - **Tao Wen**, Yu-wang Chen, Jie Zhao, Yong-Yeol Ahn, Kang Hao Cheong. Submitted to *Nature Computational Science* under consideration.
- [2] Formulating Opinion Dynamics from Belief Formation, Diffusion and Updating in Social Network Group Decision Making: A Holistic Framework.
  - **Tao Wen**, Rui Zheng, Yu-wang Chen, Zeyi Liu, Ting Wu, Mi Zhou, Tahir Abbas Syed, Darminder Ghataoura. Submitted with invitation from Editor-in-chief to *European Journal of Operational Research* under consideration.
- [3] Collective Effect of Self-learning and Social Learning on Language Dynamics: A Naming Game Approach in Social Networks.
  - **Tao Wen**, Yu-wang Chen, Renaud Lambiotte. Submitted to *Journal of the Royal Society Interface* under consideration.
- [4] Examining Communication Network Behaviors, Structure and Dynamics in an Organizational Hierarchy.
  - **Tao Wen**, Yu-wang Chen, Tahir Abbas Syed, Darminder Ghataoura. Submitted to *Information Processing & Management* under consideration.
- [5] ChatEVO: Large Language Model as All-Encompassing Evolutionary Optimizers. Jie Zhao, **Tao Wen**, Kang Hao Cheong. Submitted to *NeurIPS 2024* under consideration.
- [6] Leveraging Data Analytics to Tackle Fake News and Deepfakes in Social Networks. Tony Mathew Abraham, **Tao Wen**, Ting Wu, Yu-wang Chen. Submitted to *Humanities and Social Sciences Communications* under consideration.
- [7] Manifestation of Parrondo's Paradox in Two-Layer Traffic Flow.
  Ankit Mishra, **Tao Wen**, Kang Hao Cheong. Submitted to *Physical Review E* under consideration.
- [8] Advanced Strategy Formulation in Parrondo's Games through Large Language Models. Kang Hao Cheong, Jie Zhao, **Tao Wen**. Submitted to *Physical Review Letters* under consideration.
- [9] Human Umbilical Cord Lining Epithelial Cells as a Hypoimmunogenic Source for Retinal Regenerative Therapy.
  - Bhav Harshad Parikh, Zengping Liu, Chou Chai, Fritz Lai, Asfa Alli-Shaik, Nancy Zhao, Kakkad Regha, Binxia Yang, **Tao Wen**, Vinod Selvan, Hang Liu, Mayuri Bhargava, Shaun Loong, Oleg V. Grinchuk, Mei Sheng Lau, Yee Jie Yeap, Ernest Poon, Rajvinder Singh Khare, Queenie Shu Woon Tan, Daniel Soo Lin Wong, Haofei Wang, Claudine Wong,

Abdurrahmaan Al-Mubaarak, Paul Blakeley, Jeyakumar Masilamani, Chee Tian Ong, Toan Thang Phan, Chui Ming Gemmy Cheung, Veluchamy Amutha Barathi, Wee-Wei Tee, Walter Hunziker, Tim Xiaoming Hu, Kang Hao Cheong, Gopal Lingam, Qi-Jing Li, Qingfeng Chen, Kah Leong Lim, Xinyi Su. Submitted to *Nature Medicine* under consideration.

Tao Wen 8 of 4 July 22, 2024