

蒋泽

基本信息:

性别: 男 出生日期: 1989 年 5 月 电子邮箱: ze.jiang@unsw.edu.au; ze.jiang@hotmail.com

教育背景:

- 2018-2021 澳大利亚新南威尔士大学 (UNSW) 博士, 水利工程**
导师: Ashish Sharma (国际水文统计协会主席 President of International Commission of Statistical Hydrology (ICSH-IAHS)), 《Journal of Hydrology》和《Water Resources Research》期刊副主编。
毕业论文: 频率变换在水文气候学中的意义
- 2013-2015 欧盟联合培养硕士(法国尼斯大学), 水信息和水资源管理**
- 2008-2012 河海大学工程学士, 环境工程**

科研经历:

- 澳大利亚新南威尔士大学 (2021 年 6 月-现在) Postdoctoral Research Fellow**
- 数值天气预报 (NWP) 模型中的偏差表征和校正
 - CMIP 年代际预测 (Decadal Prediction) 在降雨预测中的应用
- 新加坡国立大学热带海洋科学研究所 (2015 年 11 月-2018 年 2 月) Research Engineer**
- 新加坡公共事业局(PUB)的 ABC Water(海绵城市)的效果评估
 - 世界银行(IFC,WB)的利用区域气候模型开发基于旱灾保险的指数, 用于有效的灾害风险转移
 - 新加坡国立大学热带海洋研究所(TMSI)的气候变化对越南湄公河流域粮食产量的影响
 - 新加坡公共事业局(PUB)的气候变化对城市洪涝的影响

研究方向:

- 应用气候模型模拟研究气候变化对水文循环的影响 (例如, 干旱和洪水)
- 基于小波分析的水文预报新方法和框架
- 海绵城市以及城市洪涝模拟

荣誉获奖:

- 2018, 澳大利亚新南威尔士大学 (UNSW) 博士全额奖学金
- 2013, 欧盟伊拉斯莫(Erasmus Mundus) 硕士全额奖学金
- 2012, 河海大学优秀毕业生
- 2009, 中国教育部国家励志奖学金

论文成果: https://www.researchgate.net/profile/Ze_Jiang3

精选期刊发表文章

1. **Jiang, Z.**, Johnson, F., & Sharma, A. (2021). Why uncertainty matters? A new alternative to project drought for future climates. submitted to *Water Resources Research*, under review. (SCI, 5.24, 1 [X])
2. **Jiang, Z.**, Sharma, A., & Johnson, F. (2021). Variable transformations in the spectral domain – Implications for hydrologic forecasting. *Journal of Hydrology*, 126816. (SCI, 5.72, 1 [X])
3. Kusumastuti, C., **Jiang, Z.**, Mehrotra R., & Sharma, A. (2021). A signal processing approach to correct systematic bias in trend and variability in climate model simulations. *Geophysical Research Letters*, e2021GL092953. (SCI, 4.72, 1 [X])
4. **Jiang, Z.**, Rashid, M. M., Johnson, F., & Sharma, A. (2020). A wavelet-based tool to modulate variance in predictors: An application to predicting drought anomalies. *Environmental Modelling & Software*, 104907. (SCI, 5.32, 1 [X])
5. **Jiang, Z.**, Sharma, A., & Johnson, F. (2020). Refining predictor spectral representation using wavelet theory for improved natural system modelling. *Water Resources Research*, 56(3), e2019WR026962. (SCI, 5.24, 1 [X])
6. Hohl, R., **Jiang, Z.**, Tue Vu, M., Raghavan, S. V., & Liong, S.-Y. (2020). Using a regional climate model to develop index-based drought insurance for sovereign disaster risk transfer. *Agricultural Finance Review*, 81(1), 151-168. (SCI, 2.30, 1 [X])
7. **Jiang, Z.**, Sharma, A., & Johnson, F. (2019). Assessing the sensitivity of hydro-climatological change detection methods to model uncertainty and bias. *Advances in Water Resources*, 134, 103430. (SCI, 4.51, 1 [X])
8. **Jiang, Z.**, Raghavan, S. V., Hur, J., Sun, Y., Liong, S.-Y., Nguyen, V. Q., & Van Pham Dang, T. (2019). Future changes in rice yields over the Mekong River Delta due to climate change - Alarming or alerting? *Theoretical and Applied Climatology*, 137(1), 545-555. (SCI, 3.38, 2 [X])
9. **Jiang, Z.**, Molkenthin, F., & Sieker, H. (2016). Urban Surface Characteristics Study Using Time-area Function Model: A Case Study in Saudi Arabia. *Procedia Engineering*, 154, 911-918. (SCI, 1.04, 会议论文)

学术汇报:

1. Jiang, Z., Sharma, A., & Johnson, F. (2020). Hydro-climatological forecasting: A view from the spectral domain. In *AGU Fall Meeting 2020*. AGU, Oral presentation, Online, San Francisco, CA, USA, 15 December 2020.
2. Sharma, A., Jiang, Z., and Johnson, F. (2020). Forecasting drought revisited - the importance of spectral transformations to dominant atmospheric predictor variables, *EGU General Assembly 2020*, Invited talk, Online, 4-8 May 2020, EGU2020-12334.
3. Jiang, Z., Sharma, A., & Johnson, F. (2019). A wavelet-based method to analyse sustained hydrological anomalies under climate change, 23rd International Congress on Modelling and Simulation (*MODSIM*), Oral presentation, Canberra, Australia, 6 December 2019.
4. Jiang, Z., Sharma, A., & Johnson, F. (2019). Drought prediction for improved water resource management: A wavelet-based system prediction approach, *STAHY 2019*, Oral presentation, Nanjing, Jiangsu, China, 20 October 2019.
5. Jiang, Z., Sharma, A., & Johnson, F. (2018). Assessing the impact of systematic biases in detection of hydrologic change across Australia, *STAHY 2018*, Oral presentation, Adelaide, South Australia, Australia, 18 September 2018.
6. Jiang, Z., Raghavan, S. V., Hur, J., Sun, Y., & Liong, S.-Y. (2017). Impacts of Climate Change on Rice Crop Yields in Vietnam, *Asia Oceania Geosciences Society (AOGS) 2017*, Oral presentation, Singapore, 11 August 2017.
7. Jiang, Z., Molkenhuth, F., & Sieker, H. (2016). Urban Surface Characteristics Study Using Time-area Function Model: A Case Study in Saudi Arabia. 12th International Conference on Hydroinformatics (*HIC 2016*), Poster, Incheon, South Korea.

著作章节:

1. Raghavan, S. V., Jiang, Z., Hur, J., Liu, J., Nguyen, N. S., & Liong, S.-Y. (2019). ASEAN Food Security under the 2 C-4 C Global Warming Climate Change Scenarios. In V. Anbumozhi, M. Breiling, & V. Reddy (Eds.), *Towards a Resilient ASEAN: Disasters, Climate Change, and Food Security: Supporting ASEAN Resilience* (Vol. 1, pp. 37-52). Jakarta, Indonesia: Economic Research Institute for ASEAN and East Asia.
2. Kim, D., Sun, Y., Wendi, D., Jiang, Z., Liong, S.-Y., & Gourbesville, P. (2018). Flood modelling framework for Kuching City, Malaysia: overcoming the lack of data. In *Advances in Hydroinformatics* (pp. 559-568): Springer, Singapore.

学术团体和社会兼职:

学术团体:

- American Geophysical Union (AGU)
- Asia Oceania Geosciences Society (AOGS)
- International Commission of Statistical Hydrology (ICSH-IAHS)
- Modeling and Simulation Society of Australia and New Zealand (MSSANZ)

社会兼职:

- Contribute to First Order Draft of IPCC 6th Assessment Report (FOD-WGII-AR6) as a group reviewer
- Contribute to Second Order Draft of IPCC 6th Assessment Report (SOD-WGI-AR6) as a group reviewer
- Reviewer for Scholarly Journals:
 - Journal of Hydrology
 - International Journal of River Basin Management
 - Frontiers in Water

推荐人:

Professor Ashish Sharma

Future Fellow (ARC) in the School of Civil and Environmental Engineering

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My primary supervisor for my Ph.D. and Postdoctoral Research Fellow roles at UNSW

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My joint supervisor for my Ph.D. and Postdoctoral Research Fellow roles at UNSW

Professor Shie-Yui Liong

Deputy Director (2008 – till retirement on 31 Aug 2019), Tropical Marine Science Institute, National University of Singapore

Founding member and Treasurer of Asia Water Council (2016 – present)

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My supervisor for my Research Engineer roles at the National University of Singapore