个 人 简 历

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工作经历

2023/02~至今　中山大学地理科学与规划学院，副教授

2022/10~2023/02　美国加州大学默塞德分校内华达山脉研究所，助理项目科学家

2018/10~2022/10　美国加州大学默塞德分校内华达山脉研究所，博士后 导师：Roger Bales

2018/04~2018/10 加拿大阿萨巴斯卡大学流域科学研究中心，博士后 导师：Junye Wang

2014/08~2017/12 美国怀俄明州大学土木工程系　　研究助理

教育背景

2014/08 ~2017/12　美国　怀俄明州大学　水资源 博士 导师：Jianting (Julian) Zhu

2010/09 ~2013/06　郑州大学 水文学及水资源　　硕士 导师：左其亭

2006/09 ~ 2010/06　郑州大学 水利水电工程　　学士

学术简介

本人已发表中英文论文共29篇（包括SCI论文16篇、《地理学报》等中文期刊论文11篇、英文会议论文2篇）。其中，作为第一作者在Water Resources Research, Journal of Hydrology（3篇），Science of The Total Environment，Journal of Hydrometeorology，Hydrological Sciences Journal，Journal of Hydrologic Engineering，Soil Science Society of America Journal等国际权威SCI期刊上发文9篇，作为第一作者发表中文论文5篇、英文会

议2篇。项目申请方面，本人撰写的基金本子已获得美国农垦部和加州水资源局的资助（60万美元）。本人参加近20次国内外会议，为PNAS Nexus, GRL, WRR等国际权威期刊审稿，也应邀作为美国和加拿大国家自然基金评审人。

本人一直从事水文水资源方面研究，围绕极端水文事件与水循环、生态系统交互关系这一主题，按照“多源数据监测与融合—物理过程模型模拟—极端事件响应与调控”的思路，提出了融合多源数据的极端降水量估算方法，建立了复杂条件下水文过程模型，基于深度学习预测缺水量并揭示了森林植被极端干旱响应机理，系统量化了人类活动对河湖水系的调控作用。

英文论文

1. Zang, C., Liu, H., Cui, G., & Liu, J. (2023). Spatiotemporal Patterns of Hydrological Variables in Water-Resource Regions of China. Water, 15(9), 1643. https://doi.org/10.3390/w15091643
2. **Cui, G.**, M. Anderson, and R. Bales, Mapping of snow water equivalent by deep-learning model assimilating ground observations, Journal of Hydrology, 10.1016/j.jhydrol.2022.128835 (中科院一区Top期刊)
3. **Cui, G.**, R. Rice, M. Anderson, F. Avanzi, P. Hartsough, W. Guo, M. Conklin, and R. Bales (2022), Precipitation estimates and orographic gradients using snow, temperature, and humidity measurements from a wireless-sensor network. Water Resources Research. 58, e2021WR029954. (中科院一区Top期刊).
4. **Cui, G.**, Q. Ma, and R. Bales (2022), Assessing multi-year-drought vulnerability in dense Mediterranean-climate forests using water-balance-based indicators. Journal of Hydrology. 606, 127431 (中科院一区Top期刊).
5. Guo, W., M. Safeeq, H. Liu, X. Wu, **G. Cui,** Ma, Q., M. Goulden, M. Lindeskog, and R. Bales (2022). Mechanisms controlling carbon sinks in semi-arid mountain ecosystems. Global Biogeochemical Cycles, 36, e2021GB007186 (中科院一区Top期刊).
6. Zuo, Q., X. D, **G. Cui,** and W. Zhang (2022), Yellow River Basin Management under Pressure. The Present State, Restoration and Protection: Lessons from a Special Issue, Water, 14(19), 3127, doi:10.3390/w14193127.
7. **Cui, G.**, R. Bales, R. Rice, M. Anderson, F. Avanzi, P. Hartsough, and M. Conklin (2020), Detecting rain-snow-transition elevations in mountain basins using wireless-sensor networks, Journal of Hydrometeorology, 21(9), 2061–2081, (中科院二区期刊).
8. **Cui, G.**, and J. Wang (2019), Improving the DNDC biogeochemistry model to simulate soil temperature and emissions of nitrous oxide and carbon dioxide in cold regions, Science of The Total Environment, 687, 61-70, (中科院一区Top期刊).

9. **Cui, G.**, and J. Zhu (2018), Prediction of unsaturated flow and water backfill during infiltration, Journal of Hydrology, 557, 509–521, (中科院一区Top期刊).

10. **Cui, G.**, and J. Zhu (2018), Infiltration model based on traveling characteristics of wetting front, Soil Science Society of America Journal, 82(1), 45-55, (中科院二区期刊).

11. **Cui, G.**, and J. Zhu (2017), Infiltration model in sloping layered soils and guidelines for model parameter estimation, Hydrological Sciences Journal, 62(13), 2222-2237, (中科院三区期刊).

12. **Cui, G.**, and J. Zhu (2018), Modeling infiltration and runoff with surface crust under unsteady rainfalls, Journal of Hydrologic Engineering, 23(7), 04018027, (中科院三区期刊).

13. Zuo Q., X. Ding**G. Cui**, and W. Zhang (2022). Yellow River Basin Management under Pressure. The Present State, Restoration and Protection: Lessons from a Special Issue, Water, 19(14), 3127, doi: 10.3390/w14193127.

14. Zuo Q., J. Guo, J. Ma, **G. Cui**, R. Yang, and L. Yu (2021). Assessment of regional-scale water resources carrying capacity based on fuzzy multiple attribute decision-making and scenario simulation, Ecological Indicators 130, 108034, doi: 10.1016/j.ecolind.2021.108034.

15. Cheng, Y., **G. Cui**, and J. Zhu (2017), Using time compression approximation to determine actual infiltration rate from variable rainfall events, Hydrology Research, doi:10.2166/nh.2017.062.

16. Zuo, Q., and **G. Cui** (2013), International viewpoint and news: Chemical leaks contaminate Chinese river: Viewing environmental emergency response of China, Environmental Earth Sciences, 69(8), 2801–2803, doi:10.1007/s12665-013-2331-1.

17. Li, D., Q. Zuo, and **G.Cui** (2013), Disposal of chemical contaminants into groundwater: viewing hidden environmental pollution in China, Environmental Earth Sciences, 70(4), 1933–1935, doi:10.1007/s12665-013-2463-3.

18. Zuo, Q., R. Jin, J. Ma, and **G. Cui** (2014), China pursues a strict water resources management system, Environmental Earth Sciences, 72(6), 2219–2222, doi:10.1007/s12665-014-3369-4.

19. Zuo, Q., H. Zhao, C. Mao, J. Ma, and **G. Cui** (2015), Quantitative analysis of human-water relationships and harmony-based regulation in the Tarim river basin, Journal of Hydrologic Engineering, 20(8), 05014030, doi:10.1061/(ASCE)HE.1943-5584.0001118.

20. Zuo, Q., R. Jin, J. Ma, and **G. Cui** (2015), Description and application of a mathematical method for the analysis of harmony, The Scientific World Journal, doi:10.1155/2015/831396.

会议论文

1. **Cui, G.**., and R. Bales (2021), Deep-learning-based snowpack mapping and forecasting with ground observations: A case study using a wireless-sensor network in the American River basin, 87th Annual Western Snow Conference , Reno, Nevada, USA.

2. **Cui, G.**., R. Bales, M. Conklin, R. Rice, F. Avanzi, and P. Hartsough (2019), Rain- snow transition elevation from wireless sensor network in American and Feather River basins, 87th

Annual Western Snow Conference , Reno, Nevada, USA.

中文论文

1. 左其亭,**崔国韬**. 人类活动对河湖水系连通的影响评估[J]. 地理学报, 2020, 75(7), 1483-1493. (中科院 T1 分区，EI 收录)
2. **崔国韬**,左其亭,李宗礼,窦明. 河湖水系连通功能及适应性分析[J]. 水电能源科学, 2012,(02):1-5.
3. 左其亭,**崔国韬**. 河湖水系连通理论体系框架研究[J]. 水电能源科学, 2012, (01) : 1-5.
4. **崔国韬**,左其亭. 人类活动对河湖水系连通关系的影响及量化评估[J]. 水资源研究,2012, 1, 326-333.
5. **崔国韬**,左其亭. 河湖水系连通与最严格水资源管理的关系[J].南水北调与水利科技, 2012,(02):129-132.
6. **崔国韬**,左其亭,窦明. 国内外河湖水系连通发展沿革与影响[J].南水北调与水利科技, 2011,(04):73-76.
7. **崔国韬**,左其亭. 生态调度研究现状与展望[J]. 南水北调与水利科技, 2011,(06) : 90-97.
8. 左其亭,**崔国韬**(郑州大学水利与环境学院). 完善水功能区管理和保障制度[N]. 中国水利报, 2012-03-15(006).
9. 窦明,**崔国韬**,左其亭,王偲,毛翠翠,许云峰. 河湖水系连通的特征分析[J]. 中国水利, 2011,(16):17-19.
10. 胡月,**崔国韬**. 基于新时期黑龙江水利发展的战略方向[J].黑龙江省水利科技,2012,(12):207-210.
11. 左其亭,张保祥,王宗志,关锋,**崔国韬**. 2011 年中央一号文件对水科学研究的启示与讨论[J]. 南水北调与水利科技, 2011,(05):68-73.

学术会议报告

1. **Cui, G.,** R. Rice, M. Anderson, M. Conklin, and R. Bales, Ground-based sensor networks provide precipitation amounts and partitioning for near-real-time decision making in California's Sierra Nevada, AGU Frontiers in Hydrology, Abstract 407, San Juan, PR, USA, Jun. 19–24, 2022. (口头报告)

2. **Cui, G.,** Q. Ma, and R. Bales, Hydrologic vulnerability of dense mixed-conifer forests in California's Sierra Nevada to multi-year droughts, American Geophysical Union (AGU) Fall Meeting AGU Frontiers in Hydrology, Abstract 413, San Juan, PR, USA, Jun. 19–24, 2022. (海报)

3. **崔国韬**, 加州内华达山脉地中海森林对多年干旱的脆弱性, 第十二次资源环境论坛顺利召开, 在线会议, 2022年5月12日. (特邀讲座)

4. **Cui, G.,** and R. Bales, Snowpack mapping and forecasting by blending deep-learning estimates with ground observations in the Northern Sierra Nevada, American Geophysical Union (AGU) Fall Meeting, Abstract C35G-0947, New Orleans, LA, USA, Dec. 13–17, 2021. (海报)

5. **崔国韬**, 应用流域无线传感器网络探测山区雨雪相态转换高度, 第九次资源环境学术报告会,

在线会议, 2021年5月13日. (特邀讲座)

6. **Cui, G.**, and R. Bales, Deep-learning-based snowpack mapping and forecasting with ground observations: A case study using a wireless-sensor network in the American River basin, 88th Annual Western Snow Conference, virtual format, Apr. 12-15, 2021 (口头报告)

7. **Cui, G.**, R. Bales, and Q. Ma, Water-stress patterns of giant-sequoia groves during multi-year droughts, American Geophysical Union (AGU) Fall Meeting, Abstract B082-0013, San Francisco, CA, USA, Dec. 1–17, 2020. (海报)

8. **Cui, G.**, and R. Bales, Water-stress vulnerability of giant sequoia groves during extended drought, Yosemite Hydroclimate Meeting 2020, Mariposa, CA, USA, Oct 15-16, 2020. (口头报告)

9. **Cui, G.**, R. Bales, R. Rice, M. Anderson, F. Avanzi, P. Hartsough, and M. Conklin, Detecting rain-snow transition elevations in mountain basins using wireless-sensor network, 2020 California Extreme Precipitation Symposium: Connecting Rain-on-Snow Events, Atmospheric Rivers, and Floods, Davis, CA, USA, Jun 30, 2020. (特邀报告)

10. **Cui, G.**, R. Bales, M. Conklin, R. Rice, F. Avanzi, P. Hartsough, and W. Guo, Mountain Precipitation Patterns in Mixed Rain-Snow Areas from a Distributed Wireless-Sensor Network and a Random Forest Model, American Geophysical Union (AGU) Fall Meeting, Abstract C41B-01, San Francisco, CA, USA, Dec. 9–13, 2019. (口头报告)

11. Guo, W., S. Khan, R. Bales, **G. Cui**, Q. Ma, Simulating water-carbon interactions in a Mediterranean mountain ecosystem using a dynamic global vegetation model, American Geophysical Union (AGU) Fall Meeting, Abstract B21G-2410, San Francisco, CA, USA, Dec. 9–13, 2019. (海报)

12. **Cui, G.**, R. Bales, M. Conklin, R. Rice, F. Avanzi, P. Hartsough, and W. Guo, Estimating precipitation in a mountainous region from a wireless-sensor network, Southern Sierra Critical Zone Observatory 2019 Annual Meeting, Merced, CA, USA, Aug. 22, 2019. (海报)

13. **Cui, G.**, R. Bales, M. Conklin, R. Rice, F. Avanzi, and P. Hartsough, Rain- snow transition elevation from wireless sensor network in American and Feather River basins , 87th Annual Western Snow Conference , Reno, Nevada, USA, Apr. 15-18, 2019. (海报)

14. **Cui, G.**, and J. Zhu, A simple and accurate rate-driven infiltration model, American Geophysical Union (AGU) Fall Meeting, Abstract H33D-1704, New Orleans, LA, USA, Dec. 11–15, 2017. (海报)

15. **Cui, G.**, and J. Zhu, Dynamic modeling of infiltration in unsaturated layered soils, American Geophysical Union (AGU) Fall Meeting, Abstract H21C-1410, San Francisco, CA, USA, Dec. 12–16, 2016. (海报)

16. **Cui, G.**, and J. Zhu, Effective Green-Ampt parameters of sloping layered soils, American Geophysical Union (AGU) Fall Meeting, Abstract H23B-1583, San Francisco, CA, USA, Dec. 14–18, 2015. (海报)

17. **Cui, G.**, and J. Zhu, Effective hydraulic parameters for sloping heterogeneous soil formations, Soil Science Society of America (SSSA) Annual Meeting, Abstract 321-9, Minneapolis, MN, USA, Nov.

15–18, 2015. (海报)

18. **Cui, G.**, and J. Zhu, Infiltration model in layered soils: Application of steady-state modeling, Civil Engineering Seminar at University of Wyoming, Laramie, WY, USA, Mar. 9, 2017. (口头报告)
19. **崔国韬**,左其亭. 人类活动对河湖水系连通关系的影响及量化评估, 第十届中国水论坛, 武汉, 中国, 2012. (口头报告, 荣获中国水论坛2012年度十佳优秀青年论文奖)

项目申请

1、美国农垦部和加州水资源局项目：Defining the rain-snow transition zone in the Northern Sierra Nevada（**申请书撰写人及主干人员**，项目时间 2020-2023, 资助美金 $600,000，项目数据信息共享网站，在研）

参与科研项目

1、美国农垦部和加州水资源局项目：Defining the rain-snow transition zone in the Northern Sierra Nevada（**主要参与人**，参与阶段 2020 年 9 月-至今）

2、美国 NSF 国家自然基金：Southern Sierra Critical Zone Observatory （**参与人**，参与阶段 2018 年 10 月-至今）

3、加拿大阿尔伯塔省政府项目；Campus Alberta Innovates Program (CAIP) fund for Integrated Hydrological and Biogeochemical Modeling（**主要参与人**， 参与阶段：2018 年 4 月-2018 年 10 月）

4、水利部河湖水系连通项目：人类活动对河湖水系连通及功能的影响分析（**主要参与人**， 参与阶段：2011 年 1 月-2012 年 1 月）

5、水利部河湖水系连通项目：河湖水系连通案例分析、连通分类及总结（**主要参与人**， 参与阶段：2012 年 1 月-2013 年 6 月）

6、国家自然科学基金项目：人水关系的和谐论调控理论方法研究（**参与人**， 参与阶段：2012 年 1 月-2013 年 6 月）

教学与指导

1. 学术指导：Individual Research (CE299) at the University of California, Berkeley. (Teacher: Bales, R.; Sept.–Dec. 2020)
2. 助教：Fluid Dynamics (ES2330) at the University of Wyoming. (Teacher: Zhu, J.; Sept.–Dec. 2015)
3. 助教：Water Resources at Zhengzhou University. (Teacher: Zuo, Q.; Apr. 2012)

其他服务

为下列 SCI 期刊的审稿人

PNAS Nexus, Geophysical Research Letters, Water Resources Research, Journal of Hydrology, Journal of Hydrometeorology, Soil Science Society of America Journal, Agricultural and Forest Meteorology, Journal of Hydrologic Engineering, Environmental Pollution, Environmental Earth Sciences, Water, Geosciences, Entropy, Atmosphere, Environmental Science and Pollution Research, Mathematics

为下列 SCI 期刊的评审委员会

Water

作为美国和加拿大基金的评审人

1. US.NSF: EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows (RII Track-4)
2. The Natural Sciences and Engineering Research Council of Canada (NSERC)

作为项目报告的评审人

Western Water Assessment: Colorado River Basin Climate and Hydrology State of the Science

学术协会会员

American Geophysical Union (AGU)；American Meteorological Society (AMS)

学术服务

1. 期刊Water客座编辑：Special Issue “Yellow River Basin Management under Pressure: Present State, Restoration and Protection”
2. 期刊Frontiers in Marine Science客座编辑：Special Issue “Flow, Mass Transport and Ecological Process in Land-Freshwater-Marine Ecosystems on Earth”

荣誉及奖励

- 2008 年 10 月，2008 年度郑州市大中学生社会实践先进个人
- 2009 年 4 月，郑州大学国旗护卫队优秀教员
- 2009 年 12 月，郑州大学优秀学生干部
- 2012 年 8 月，中国水论坛 2012 年度十佳优秀青年论文奖
- 2012 年 11 月，郑州大学百名研究生优秀科研奖
- 2012 年 11 月，2012 年研究生国家奖学金
- 2013 年 3 月，2013 届郑州大学优秀毕业研究生
- 2013 年 3 月，2013 届河南省优秀毕业研究生
- 2013 年 4 月，第六届张光斗科技教育基金优秀学生奖学金
- 2017 年 8 月，Summer Ph.D. Augmentation, University of Wyoming, WY, USA