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职业概述

郑春苗，美国威斯康星大学麦迪逊分校博士，美国地球物理联合会（AGU）会士、美国地质学会（GSA）会士、中国环境科学学会外籍会士、国家自然科学基金委海外杰出青年基金获得者。现任宁波东方理工大学讲席教授、副校长（分管对外合作与工学）。曾任南方科技大学环境学院创院院长、校长办公会成员（分管国际事务）；北京大学讲席教授、水科学研究中心首任主任；以及美国阿拉巴马大学地质科学系 George Lindahl 冠名讲席教授。

长期从事地下水污染机理与修复、流域生态—水文—环境过程、全球变化与新污染物对地下水资源可持续利用的影响等方面的研究，在地下水溶质运移模拟领域作出了系统性、开创性贡献。他研发的 MT3D/MT3DMS 模型已在全球 100 多个国家广泛应用，成为地下水污染模拟与水资源管理领域的重要基础模型之一，对相关领域的科学研究、工程实践和环境管理产生了深远影响。

已出版学术专著 6 部，发表 SCI 论文 500 余篇，总引用超过 4.28 万次，多次入选科睿唯安“全球高被引科学家”和爱思唯尔“中国高被引学者”榜单。现任国际期刊 *Sustainable Horizons* 创刊主编，曾任包括 *Water Resources Research* 在内的 5 份国际水资源领域权威期刊副主编，并曾担任美国国家研究理事会（NRC）水文科学核心小组成员、国际水文科学协会（IAHS）国际地下水委员会主席。

长期服务于国家和地方重大科技平台建设与战略咨询工作，曾任生态环境部流域地表水—地下水污染综合防治重点实验室主任、粤港土壤与地下水污染防控及修复联合实验室主任、国家自然科学基金委重大研究计划“西南河流源区径流变化和适应性利用”指导专家组副组长，以及“黑河流域生态—水文过程集成研究”指导专家组成员，并担任生态环境部、国家自然科学基金委等多个咨询专家组成员。

荣获多项国际重要学术荣誉，包括第 11 届苏丹·本·阿卜杜勒阿齐兹国际水奖（PSIPW, 2024）、美国地质学会 O.E. Meinzer 奖（2013）和 Birdsall-Dreiss 杰出讲席奖（2009）、美国地下水协会 M. King Hubbert 奖（2013）和 John Hem 科学与工程卓越奖（1998）等。其中，PSIPW 被誉为三大国际水奖之一，O.E. Meinzer 奖被视为国际水文地质界最高荣誉，M. King Hubbert 奖为美国地下水协会最高科学奖。

教育背景

1985-1988: 博士（主修水文地质、辅修土木与环境工程），美国威斯康星大学麦迪逊分校
1983-1984: 教育部出国代培研究生，成都理工大学（原成都地质学院）
1979-1983: 学士（水文地质），成都理工大学（原成都地质学院）

工作经历

2022-现在: 宁波东方理工大学讲席教授、副校长（分管对外合作与工学）
2022-2026: 南方科技大学讲席教授、深圳可持续发展研究院院长（2022年后为过渡期）
2018-2022: 南方科技大学讲席教授、校长办公会成员、国际合作部部长
2015-2018: 南方科技大学讲席教授、环境科学与工程学院创院院长
2010-2018: 北京大学讲席教授、水科学研究中心首任主任（2015年后为过渡期）
2010-2018: 美国阿拉巴马大学地质科学系冠名讲席教授（2013年开始停薪留职）
2002-2009: 美国阿拉巴马大学地质科学系教授
1997-2002: 美国阿拉巴马大学地质科学系副教授（终身职）
1993-1997: 美国阿拉巴马大学地质科学系助理教授
1988-1993: 美国 S.S. Papadopoulos & Associates, Inc. 环境与水资源咨询公司水文地质专家

学术经历

2025-现在: 上海交通大学客座教授
2024-现在: 成都理工大学访问教授
2021-现在: 河海大学长江保护与绿色发展研究院访问讲席教授
2018-现在: 美国阿拉巴马大学地质科学系客座教授
2001: 英国谢菲尔德大学土木工程系访问学者
2000: 美国斯坦福大学地质与环境科学系访问副教授
1995: 澳大利亚国家原子能科学技术机构访问学者
1991: 美国乔治·华盛顿大学兼职讲师

获奖与荣誉

2024、2025: 科睿唯安“全球高被引科学家”榜单（Highly Cited Researcher）
2024: 第11届苏丹·本·阿卜杜勒阿齐兹国际水奖（PSIPW）
2024: 中国环境科学学会外籍会士
2019: 美国地球物理联合会会士（AGU Fellow）
2014: 美国威斯康星大学麦迪逊分校地学系杰出校友奖（Distinguished Alumni Award）
2013: 美国地质学会迈因策尔奖（O.E. Meinzer Award）
2013: 美国地下水协会哈博奖（M. King Hubbert Award）
2010: 北京大学“国家特聘讲席教授”
2009: 美国地质学会水文地质杰出讲席奖（Birdsall-Dreiss Distinguished Lecturer）
2008: 美国特拉华大学 DuPont Lecturer
2006: 中国国家自然科学基金委海外青年合作基金（海外杰青）
2005: 美国德克萨斯大学 Oliver Lecturer
1999: 美国地质学会会士（GSA Fellow）
1998: 美国地下水协会 John Hem 科学与工程卓越奖

学术兼职（部分）

2025-现在: 加拿大非营利教育机构“The Groundwater Project”董事会成员
2025-现在: 全球能量与水循环试验（GEWEX）地下水网络指导专家组成员
2023-现在: 粤港土壤与地下水污染防控及修复联合实验室主任

2023-2025: 美国地球物理联合会 (AGU) 会士遴选委员会水文科学分委员会成员
2021-现在: 国际学术期刊 *Sustainable Horizons* 创刊主编
2019-现在: 国家自然科学基金委环境地球科学学科咨询专家组成员
2018-现在: 生态环境部土壤生态环境保护专家咨询委员会成员
2018-现在: 国家环境保护流域地表水-地下水污染综合防治重点实验室主任
2017-现在: 广东省土壤与地下水污染防控及修复重点实验室主任
2016-现在: 国际学术期刊 *Vadose Zone Journal* 副主编
2015-2024: 国家自然科学基金委重大研究计划“西南河流源区径流变化和适应性利用”指导专家组副组长
2013-2018: 地质学报 (英文版) *Acta Geologica Sinica* 副主编
2010-2015: 国际学术期刊 *Water Resources Research* 副主编
2010-2018: 国家自然科学基金委重大研究计划“黑河流域生态-水文过程集成研究”指导专家组成员
2007-2014: 国际学术期刊 *Journal of Hydrology* 副主编
2007-2013: 国际水文科学协会 (IAHS) 国际地下水委员会当选主席、主席
2005-2015: 美国国家研究理事会 (National Research Council) 水文科学核心小组成员
2005-2007: 美国大学水文科学联合会 (CUAHSI) 行政负责人之一 (Treasurer)
2003-2007: 国际学术期刊 *Hydrogeology Journal* 副主编
2003-2004: 国际中国地球科学促进会 (IPACES) 2003-2004 年度主席
1998-2024: 国际地下水模拟学术会议系列“MODFLOW and More”组织者
1998-2010: 国际学术刊物 *Ground Water* 副主编及软件版主编

研究领域

- 全球变化及新污染物对地下水资源可持续利用的影响
- 流域尺度生态-水文过程集成研究
- 地表水-地下水相互作用及其生态环境效应
- 地下水污染机理与修复技术
- 基于绿色环境修复的减污降碳协同技术

教学与人才培养

- 在美国和中国的四所高校 (阿拉巴马大学、北京大学、南方科技大学和宁波东方理工大学) 创建并系统推动了地下水文及环境科学与工程学科的发展。
- 设计并讲授了 10 余门本科与研究生课程, 涵盖水文地质、地下水流与污染物迁移模拟、地质统计学、水文与环境耦合系统、水资源管理、地下水野外方法及定量分析等领域。
- 指导和培养了 120 余名研究生与博士后研究人员 (其中女性超过一半), 其中多位已在全球高校、科研机构、政府部门和产业界担任重要学术与管理职务。

科研项目与经费

- 共获得 58 项科研项目资助, 其中主持 50 项、共同主持 8 项。在北京大学、南方科技大学和宁波东方理工大学任职期间, 他作为项目负责人获得的科研经费合计约 2 亿元人民币; 在美国阿拉巴马大学任职期间, 他作为项目负责人或共同负责人获得的科研经费合计约 1,900 万美元。
- 上述项目获得了中美两国主要科研资助机构的支持, 包括中国国家自然科学基金委员会 (NSFC)、中国科学技术部 (MOST)、中国地质调查局 (CGS)、美国国家科学基金会 (NSF) 和美国环境保护署 (EPA)。

代表性论著

10 篇水文科学领域论文, 10 篇环境与交叉科学领域论文

(*表示通讯作者)

【概述】共发表论文 500 余篇, 出版著作 6 部。以下列出部分近期代表性论文, 完整论著目录见本文件后文。

【水文与地下水科学领域】

1. Kuang, X., J. Liu*, B.R. Scanlon, J.J. Jiao, S. Jasechko, M. Lancia, B.K. Biskaborn, Y. Wada, H. Li, Z. Zeng, Z. Guo, Y. Yao, T. Gleeson, J.-P. Nicot, X. Luo, Y. Zou, **C. Zheng***, 2024, The changing nature of groundwater in the global water cycle, *Science*, 383(6686), eadf0630, <https://doi.org/10.1126/science.adf0630>.
2. Yu, J., Y. Tian*, X. Wang, T. Sun, M. Lancia, C.B. Andrews, **C. Zheng***, 2024, Integrated modeling of flow, soil erosion, and nutrient dynamics in a regional watershed: Assessing natural and human-induced impacts, *Water Resour. Res.*, 60(9), e2024WR037531, <https://doi.org/10.1029/2024WR037531>.
3. Pang, M., E. Du*, **C. Zheng***, 2024, Contaminant transport modeling and source attribution with attention-based graph neural network, *Water Resour. Res.*, 60(6), e2023WR035278, <https://doi.org/10.1029/2023WR035278>.
4. Ma, R., K. Chen, C.B. Andrews, S.P. Loheide, A.H. Sawyer, X. Jiang, M.A. Briggs, P.G. Cook, S.M. Gorelick, H. Prommer, B.R. Scanlon, Z. Guo, **C. Zheng***, 2024, Methods for quantifying interactions between groundwater and surface water, *Annual Review of Environment and Resources*, 49, 623–653, <https://doi.org/10.1146/annurev-environ-111522-104534>.
5. Chen, K., X. Chen, J.C. Stegen, ..., E.E. Roden*, **C. Zheng***, 2023, Vertical hydrologic exchange flows control methane emissions from riverbed sediments, *Environ. Sci. Technol.*, 57(9), 4014–4026, <https://doi.org/10.1021/acs.est.2c07676>.
6. Du, E., Y. Tian, X. Cai, Y. Zheng, F. Han, X. Li, M. Zhao, Y. Yang, **C. Zheng***, 2022, Evaluating distributed policies for conjunctive surface water–groundwater management in large river basins: Water uses versus hydrological impacts, *Water Resour. Res.*, 58(1), e2021WR031352, <https://doi.org/10.1029/2021WR031352>.
7. Yin, M., R. Ma, Y. Zhang*, K. Chen, Z. Guo, **C. Zheng***, 2022, A dual heterogeneous domain model for upscaling anomalous transport with multi-peaks in heterogeneous aquifers, *Water Resour. Res.*, 58(4), e2021WR031128, <https://doi.org/10.1029/2021WR031128>.
8. Lancia, M., Y. Yao, C.B. Andrews, X. Wang, X. Kuang, J. Ni, S.M. Gorelick, B.R. Scanlon, Y. Wang, **C. Zheng***, 2022, The China groundwater crisis: A mechanistic analysis with implications for global sustainability, *Sustainable Horizons*, 4, 100042, <https://doi.org/10.1016/j.horiz.2022.100042>.
9. **Zheng, C.** and Z. Guo, 2022, Plans to protect China's depleted groundwater, *Science*, 375 (6583), 827, <https://doi.org/10.1126/science.abn8377>.
10. Yao, Y., **C. Zheng***, C.B. Andrews, B.R. Scanlon, X. Kuang, Z. Zeng, S. Jeong, 2021, Role of groundwater in sustaining northern Himalayan rivers, *Geophysical Research Letters*, 48, e2020GL092354, <https://doi.org/10.1029/2020GL092354>.

【环境与交叉科学领域】

1. Chen, H., Z. Liu, W. Qiu, ..., **C. Zheng**, 2026, Tumour recurrence, gastrointestinal symptoms and inflammation associated with microplastic-positive intestinal tumours, *Nature Health*, <https://doi.org/10.1038/s44360-026-00123-z>.
2. Qiu, W., G. Yang, L. Cao, ..., **C. Zheng***, 2025, Risks of per- and polyfluoroalkyl substance exposure through marine fish consumption, *Science*, 390 (6779), 1305–1309, <https://doi.org/10.1126/science.adr0351>.
3. Fan, L., X. Kuang, C. Ouyang, K. Chen, **C. Zheng***, 2025, Climatic controls on hydrological landslide triggering in the northern Himalayas, *Water Resour. Res.*, 61(2), e2024WR039611, <https://doi.org/10.1029/2024WR039611>.

4. Wu, Y., L. Feng*, S. Yang, **C. Zheng***, 2025, Satellite observations reveal recent increases in water clarity in Chinese coastal waters, *Environ. Sci. Technol.*, 59(38), 20452–20461, <https://doi.org/10.1021/acs.est.5c07097>.
5. Feng, L., Y. Wang, X. Hou, B. Qin, T. Kutser, F. Qu, N. Chen, H.W. Paerl, **C. Zheng**, 2024, Harmful algal blooms in inland waters, *Nature Reviews Earth & Environment*, 5, 631–644, <https://doi.org/10.1038/s43017-024-00578-2>.
6. Gu, X., X. Feng, ..., **C. Zheng**, Z. Xu, H. Chen, 2024, Photovoltaic-driven dual-oxidation seawater electrolyzer for sustainable lithium recovery, *Proceedings of the National Academy of Sciences*, 121(43), e2414741121, <https://doi.org/10.1073/pnas.2414741121>.
7. Dai, Y., S. Yang, D. Zhao, ..., **C. Zheng**, L. Feng, 2023, Coastal phytoplankton blooms expand and intensify in the 21st century, *Nature*, 615 (7951), 280–284, <https://doi.org/10.1038/s41586-023-05760-y>.
8. Lin, S., H. Zhang, C. Wang, ..., Z. Cai*, and **C. Zheng***, 2022, Metabolomics reveal nanoplastic-induced mitochondrial damage in human liver and lung cells, *Environ. Sci. Technol.*, 56(17), 12483–12493, <https://doi.org/10.1021/acs.est.2c03980>.
9. Feng, Y., Z. Zeng*, T.D. Searchinger, ..., **C. Zheng***, 2022, Doubling of annual forest carbon loss over the tropics during the early twenty-first century, *Nature Sustainability*, 5, 444–451, <https://doi.org/10.1038/s41893-022-00854-3>.
10. Ben, Y., C. Fu, M. Hu, L. Liu, M. H. Wong, **C. Zheng***, 2019, Human health risk assessment of antibiotic resistance associated with antibiotic residues in the environment: A review, *Environmental Research*, 169, 483–493, <https://doi.org/10.1016/j.envres.2018.11.040>.

5 项代表性著作与软件

1. 郑春苗、姚莹莹，2020，黑河流域中下游生态水文过程的系统行为与调控研究，科学出版社，北京。
2. **National Research Council (NRC)**, 2012, *Challenges and Opportunities in the Hydrologic Sciences*, National Academies Press, Washington, D.C., 188 pp. (专著；郑春苗为作者小组成员； <https://doi.org/10.17226/13293>)。
3. 郑春苗等（中国地下水战略研究小组），2009，中国地下水科学的机遇与挑战，科学出版社，北京（郑春苗为作者小组负责人）。
4. **Zheng, C.** and G.D. Bennett, 2002, *Applied Contaminant Transport Modeling, 2nd edition*, John Wiley & Sons, New York, 621 pp. (专著；截至2026年7月各种版本谷歌学术引用总数逾2200次； [出版商Wiley网站](#))。
5. **Zheng, C.** and P.P. Wang, 1999, *MT3DMS: A Modular Three-Dimensional Multispecies Transport Model for Simulation of Advection, Dispersion, and Chemical Reactions of Contaminants in Groundwater Systems; Documentation and User's Guide*, Contract Report SERDP-99-1, U.S. Army Engineer Research and Development Center, Vicksburg, MS, 221 pp. (软件；截至2026年7月各种版本谷歌学术引用总数逾3500次； [软件网站](#))。

郑春苗论著及获资助科研项目完整目录

Complete List of Publications and Funded Research Projects
for Chunmiao Zheng

论文专著 (*表示通讯作者)

【概述】以作者或共同作者身份发表学术论文**500余篇**，出版**专著6部**；谷歌学术总引用次数逾**42,880次**（截至2026年7月）：<http://scholar.google.com/citations?hl=en&user=g0FPeQsAAAAJ>

[Published in 2026]

- Zheng, T., B. Guo, Q. Chang, Q. Sun, X. Chen, X. Zheng, J. Wu, Z. Zheng, S. Gao, **C. Zheng**, ..., J. Luo, A. Guadagnini, 2026, Paleo-salt water dominates coastal aquifer salinization: A continental-scale study in China, *Science Advances*, 12(21), eady2322, <https://doi.org/10.1126/sciadv.ady2322>.
- Chen, H., Z. Liu, W. Qiu, Y. Zhou, E. G. Xu, J. T. Magnuson, J. Zhao, W. Zhao, S. Hou, H. Shi, B. Xing, **C. Zheng**, 2026, Tumour recurrence, gastrointestinal symptoms and inflammation associated with microplastic-positive intestinal tumours, *Nature Health*, <https://doi.org/10.1038/s44360-026-00123-z>.
- Zhang, N., L. Feng*, **C. Zheng***, 2026, Two decades of ocean color and thermal front variability in the Chinese coastal ocean, *Journal of Geophysical Research: Oceans*, 131, e2026JC024446, <https://doi.org/10.1029/2026JC024446>.
- Xu, S., W. Zhang, Y. Tian*, S.-C. Hsu, **C. Zheng***, 2026, Mechanism-guided dynamic machine learning overcomes environmental non-stationarity in algal bloom prediction, *J. Hydrol.*, 677, Part C, 135987, <https://doi.org/10.1016/j.jhydrol.2026.135987>.
- Kong, L., H. Xu, Y. Wang, Y. Tao*, ..., **C. Zheng***, 2026, Single-cell profiling reveals hidden drivers of sediment phosphorus release, *Environ. Sci. Technol.*, 60(6), 4830–4839, <https://doi.org/10.1021/acs.est.5c15684>.
- Kong, M., Y. Feng*, Z. Lin, **C. Zheng***, 2026, Divergent trends in global vegetation sensitivity to soil moisture and atmospheric dryness, *J. Hydrol.*, 676, 135721, <https://doi.org/10.1016/j.jhydrol.2026.135721>.
- Guo, S., Y. Yao, Z. Wu, G. Jia, W. Liang, M. Lancia, **C. Zheng**, 2026, Integrating socioeconomic withdrawals into a deep learning framework for high-resolution groundwater storage prediction in the Yellow River Basin, *Water Resour. Res.*, 62(7), e2025WR043071, <https://doi.org/10.1029/2025WR043071>.
- Li, H., Z. Guo, Z. Pan, Y. Zhan, S. Wan, H. Zhong, C. Lu, **C. Zheng**, 2026, Thermal effects on aquifer storage and recovery in brackish aquifers, *J. Hydrol.*, 678, 136054, <https://doi.org/10.1016/j.jhydrol.2026.136054>.
- Shu, Y., Y. Liu, L. Song, E. Ytreberg, L. Gan, S. Xu, **C. Zheng**, 2026, Temporal and spatial distribution of ship wastewater generated in the Yangtze River, *Journal of Cleaner Production*, 568, 148710, <https://doi.org/10.1016/j.jclepro.2026.148710>.
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获资助科研项目

【概述】在宁波东方理工大学、南方科技大学及北京大学任职期间，以项目负责人（PI）身份主持各级科研项目20余项，累计经费约2亿元人民币。在美国阿拉巴马大学任教期间，以 PI 或共同负责人（Co-PI）身份获批各类科研项目，总经费约1,900万美元。

1. 国家自然科学基金重点项目，#42530709，非均质含水层中 PFAS 跨尺度迁移扩散机理与模拟预测，2026-2030，主持（依托宁波东方理工大学）。
2. 国家重点研发计划政府间国际科技创新合作项目，#2023YFE0117000，微塑料在农田土壤和地下水中的分布特征和迁移机理，2023-2025，主持（依托南方科技大学/宁波东方理工大学）。
3. 浙江省顶尖创新项目，减污降碳协同技术，2023-2028，主持（依托宁波东方理工大学）。
4. 宁波市顶尖创新项目，减污降碳协同技术（配套），2023-2028，主持（依托宁波东方理工大学）。
5. 宁波市重点研发计划，城市水体三维仿真、预警及水土共治体系应用研究，2023-2025，主持（依托宁波东方理工大学）。
6. 广东省科技厅，粤港土壤与地下水污染防控及修复联合实验室，2023-2026，主持（依托南方科技大学）。
7. 深圳市可持续发展专项，#KCXFZ20201221173410029（专 2021N039），深圳饮用水水源地与供水系统全系统动态风险评估预警和应急管理关键技术研发及应用，2021-2024，主持（依托南方科技大学）。
8. 科技部/教育部高等学校学科创新引智计划（“111 计划”），环境科学与工程学科创新引智基地，2020-2024，主持（依托南方科技大学）。
9. 国家自然科学基金重点项目，#41931292，反常扩散在地下水污染溯源分析、原位修复和风险评估中的关键作用：理论与试验研究，2020-2024，主持（依托南方科技大学）。
10. 国家自然科学基金重大项目课题，#41890852，粤港澳大湾区陆海相互作用下营养物质迁移转化过程与机理，2019-2023，主持（依托南方科技大学）。
11. 国家自然科学基金国际（地区）合作与交流项目，#41861124003，INFEWS: U.S.-China: 基于耦合水文模型的中美流域尺度“食品—能源—水”系统可持续性比较研究，2018-2022，主持（依托南方科技大学）。
12. 广东省级科技计划项目，#2017B030301012，广东省土壤与地下水污染防控及修复重点实验室，2017-2019，主持（依托南方科技大学）。
13. 广东省引进领军人才项目，#2016LJ06N469，地下水污染修复技术研发与集成，2017-2022，主持（依托南方科技大学）。
14. 科技部国家重点研发计划项目课题，#2016YFC0402806，海水入侵模拟与预测技术方法及软件平台研发，2016-2020，主持（依托南方科技大学）。
15. 深圳市发展和改革委员会，深圳市战略性新兴产业发展专项资金，环境保护与资源高效利用学科建设，2017-2019，主持（依托南方科技大学）。
16. 深圳市海外高层次人才创新创业团队，#KQTD2016022619584022，深圳市水环境污染的综合治理与生态修复，2016-2021，主持（依托南方科技大学）。
17. 深圳市科技计划项目，#ZDSY20150831141712549，深圳市土壤与地下水污染防治重点实验室，2015-2018，主持（依托南方科技大学）。
18. 国家自然科学基金重大研究计划集成项目，#91425303，黑河流域水-生态-经济系统的集成模拟与预测，2015-2018，共同负责人（依托北京大学）。
19. 国家自然科学基金重点项目，#41330632，小尺度优先水流通对地下水污染物迁移过程和修复的控制作用：基于野外试验的基础研究，2014-2018，主持（依托北京大学）。
20. 国家自然科学基金重大研究计划集成项目，#91225301，黑河流域中下游生态水文过程的系统行为与调控研究，2013-2016，主持（依托北京大学）。

21. 环境保护部环保公益性行业专项, #201309005, 稀土尾矿库周边地下水溶质迁移与水文地球化学耦合模型研究, 2013-2015, 主持(依托北京大学)。
22. 环境保护部《全国地下水污染防治规划(2011—2020年)》项目, 全国地下水基础环境状况调查评估, 2011-2017, 专题负责人(依托北京大学、南方科技大学)。
23. 中国地质调查局地质调查项目, #1212011121174, 地下水污染迁移过程研究与数值模拟, 2011-2013, 主持(依托北京大学)。
24. Collaborative Research: High-resolution dynamic characterization of transport pathways: providing new insights into subsurface processes, National Science Foundation, 2008-2012, PI (through the University of Alabama).
25. Optimal management of coastal aquifers against seawater intrusion, Baldwin County, Alabama, NOAA through the state of Alabama, 2008-2009, PI (through the University of Alabama).
26. With John Zachara (PI) and 17 Co-PIs, Multi-scale mass transfer processes controlling natural attenuation and engineered remediation: An Integrated Field Challenge (IFC) focused on Hanford's 300 Area uranium plume, Department of Energy, 2007-2012, Co-PI (through the University of Alabama).
27. Accurate determination of groundwater recharge on the North China Plain through environmental tracers and 3D numerical modeling, Sino-German International Collaborative Research Program, National Natural Science Foundation of China, 2010-2012, PI (through Peking University).
28. A coupled surface water-groundwater model for understanding hydrologic processes and water quality evolution in the North China Plain (NCP), Ministry of Science and Technology of China, 2007-2011, PI (through Peking University).
29. Spatial distribution of groundwater ages in a large sedimentary basin: Numerical simulation and application, National Natural Science Foundation of China, 2007-2009, PI (through Peking University).
30. Collaborative Research: Solute transport in aquifers containing connected high-conductivity networks: theory founded on laboratory and field data, National Science Foundation, 2006-2009, PI (through the University of Alabama).
31. Development of modeling methods and tools for predicting coupled reactive transport processes in porous media at multiple scales, Department of Energy, 2006-2009, PI of subaward to the University of Alabama.
32. Discrete fracture network models for risk assessment of carbon sequestration in coal, Department of Energy, 2005-2008, PI of subaward to the University of Alabama.
33. Sustainable groundwater management of coastal aquifers in Baldwin County, Alabama, NOAA through the state of Alabama, 2005-2007, PI (through the University of Alabama).
34. Reliability considerations in groundwater remediation system and monitoring network design, DuPont Company, 2005-2006, PI (through the University of Alabama).
35. Development of information infrastructure for hydrologic sciences, National Science Foundation, 2004-2005, PI of subaward to the University of Alabama.
36. Groundwater study of Ft. Morgan Peninsula, Baldwin County, NOAA through the state of Alabama, 2004-2005, PI (through the University of Alabama).
37. Further development of the MT3DMS contaminant transport model for linkage with the Army Risk Assessment Modeling System, Army Engineer Research and Development Center, 2003-2004, PI (through the University of Alabama).
38. Further development of the ModGA code for contaminant source identification, DuPont Company, 2003-2004, PI (through the University of Alabama).
39. Acquisition of geophysical field equipment for earth science research and teaching at the University of Alabama, NSF, 2002-2004, Co-PI.
40. With Jimmy Jiao (University of Hong Kong), Modification of regional groundwater regimes by large-scale land reclamation, Research Grants Council of Hong Kong, 2002-2005, Co-PI (through the University of Alabama).

41. Further development of the ModGA code for monitoring network design optimization, DuPont Company, 2002-2003, PI (through the University of Alabama).
42. Collaborative Research: A systematic study of solute transport influenced by preferential flow paths at the decimeter and smaller scales, NSF, 2001-2005, PI (through the University of Alabama).
43. Field demonstration of transport optimization modeling for reducing the costs of groundwater pump-and-treat systems, Department of Defense Environmental Security Technology Certification Program (ESTCP), 2000-2003, PI (through the University of Alabama).
44. With Amy Ward (Project Director, University of Alabama) and 17 others at University of Alabama and University of New Mexico, Integrative Graduate Education and Research Traineeship (IGERT) Program in Freshwater Sciences, NSF, 1999-2004, Co-PI and leader of the solute transport research theme (through the University of Alabama).
45. With Jimmy Jiao (University of Hong Kong), Origin and evolution of abnormal fluid pressures in the Shiwu area in northeastern China, Research Grants Council of Hong Kong, 1999-2002, Co-PI (through the University of Alabama).
46. Subsurface site characterization via a computer-aided tool, Gulf Coast Hazardous Substance Research Center, US EPA, 1998-2000, Co-PI (through the University of Alabama).
47. Incorporation of variably saturated flow and contaminant transport in the groundwater flow and transport optimization model ModGA, DuPont Chemical, 1998-1999, PI (through the University of Alabama).
48. Multi-fractal scaling of hydraulic conductivity distributions and the effect on plume-scale contaminant transport, National Science Foundation, 1997-2000, PI of subaward to the University of Alabama.
49. Modeling biologically reactive contaminant transport and natural attenuation, Pacific Northwest National Laboratory, Department of Energy, 1997-1998, PI (through the University of Alabama).
50. Development and application of a multicomponent solute transport simulator for the Department of Defense Groundwater Modeling System (GMS), US Army Engineer Research and Development Center, 1996-2000, PI (through the University of Alabama).
51. A global optimization approach for parameter identification in contaminant transport modeling, U.S. Environmental Protection Agency, 1995-1997, PI (through the University of Alabama).
52. Development of a simulation-optimization model for groundwater management and remediation designs, DuPont Company, 1995-1998, PI (through the University of Alabama).
53. Parameter identification using genetic algorithms, DuPont Company, 1995-1996, PI.
54. Simulation of reactive tracer transport in a strongly heterogeneous aquifer, Cray Research, Inc., 1995-1996, PI (through the University of Alabama).
55. Augmentation of optimal policy selections to groundwater contaminant transport model MT3D (Phases I and II), USGS through Alabama Water Resources Research Institute, 1994-1995, Co-PI (through the University of Alabama).
56. Development of an advanced contaminant fate and transport simulator for Cray supercomputers, Cray Research, Inc., 1994-1995, PI (through the University of Alabama).
57. An investigation of underpressured geological formations for disposal of hazardous wastes, State of Alabama through UA School of Mines and Energy Development, 1994-1995, PI (through the University of Alabama).
58. A graduate fellowship to support Ph.D. research in hydrogeology, S.S. Papadopoulos & Associates, Inc., 1994-1995, PI (through the University of Alabama).