

# SHAOQING DAI



## WORKING EXPERIENCE

Current  
|  
2025.01



### Key-Funded Postdoctoral Researcher

Geography Postdoctoral Program, School of Resource and Environmental Sciences, Wuhan University

📍 Wuhan, China

• Co-mentor: Prof.Peng Jia



## EDUCATION

2024.06  
|  
2020.01



### Ph.D., Geoinformatics

Faculty of Geo-information Science and Earth Observation(ITC), University of Twente

📍 Enschede, Netherlands

- Thesis: Improving obesogenic environmental assessments with advanced geospatial methods
- Supervised by Prof.Peng Jia, Prof.Alfred Stein

2019.06  
|  
2016.09



### M.Sc., Ecology

Institute of Urban Environment, Chinese Academy of Sciences, University of Chinese Academy of Sciences

📍 Xiamen, China

- Thesis:Creating a Carbon Source and Sink Map by Coupling an Ecological Process Model with an Emission Inventory to Study a Carbon Balance
- Supervised by Prof.Yin Ren

2016.06  
|  
2012.09



### B.S., Geographical Science (National Talents Training Base)

School of Geographical Sciences, Fuajian Normal University

📍 Fuzhou, China

- Thesis:The Planning Location and Design of Smart Campus Based on BIM and GIS:A Case Study of Fujian Normal University
- Supervised by Prof.Huixian Jiang



## RESEARCH INTERESTS

Current  
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2012



**Health Geography; Urban Visual Intelligence; Spatial Lifecourse Helath; Spatial Statistics; UrbanComputing; Spatial-Temporal Big Data**



View this CV online with links at [nickstrayer.me/cv/](http://nickstrayer.me/cv/)

## CONTACT

✉ [shaoqing.dai@outlook.com](mailto:shaoqing.dai@outlook.com)

🌐 [GISerDaiShaoqing](#)

🔗 [Homepage](#)

## LANGUAGE SKILLS

R

GIS

3D Modeling

Python

Statistics

RS & Earth Observation

Made with the R package [pagedown](#).

The source code is available on [GISerDaiShaoqing/Curriculum-Vitae-Latex](#).

Last updated on 2025-03-02.



## DEVELOPED OPEN SOFTWARE

Current  
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2017

### ● **Note of Applied Statistics with R**

· <http://gisersqdai.top/Note-of-Applied-Statistics-with-R-Book/>

Current  
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2018

### ● **D3L Tool of NASA Satellite**

· The program provides a graphical interface to download satellite imagery from NASA, such as MODIS products, MERIS and more information can see url<sup>1</sup>

Current  
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2018

### ● **Geographical detector in R**

· The geographical detector software based on R

Current  
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2018

### ● **GitHub Paper Notebook**

· The software for notebook of papers

Current  
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2019

### ● **rgeoda**

· rgeoda is a R package for spatial data analysis based on libgeoda and GeoDa(contributor).

Current  
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2020

### ● **COVID-19 Dashboard shiny app**

· A developed dashboard shiny app about COVID-19, url<sup>2</sup>.

Current  
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2020

### ● **Awesome COVID-19**

· Resources of COVID-19 research. <http://covid19.gisersqdai.top/en-us/>

Current  
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2023

### ● **MetS score calculator shiny app**

· A shiny app to calculate MetS score. [https://gisersqdai.shinyapps.io/mets\\_severiity\\_calculator/](https://gisersqdai.shinyapps.io/mets_severiity_calculator/)




## AWARDS & HONORS

2025

### ● **Special Program for the Introduction of Overseas Postdoctoral Talents**

· Ministry of Education of the People's Republic of China

- 2022 ● **Outstanding contributions to COVID-19 epidemic prevention and control**
- Health commission of Tumot Left Banner, Inner Mongolia autonomous region
- 2021 ● **The National 2nd Prize in the 5th Planning Decision Support Model Design Contest(Chengyuan Cup)**
- Beijing Chengyuan Digital Technology Co. Ltd., World Urban Planning Education Network, Beijing Planning Institute Hongdu Planning and Architectural Design Research Institute Co. Ltd., Beijing City Lab, Baidu Map Huiyan, China Unicom Smart Footprint
- 2019 ● **China Scholarship Council(CSC)**
- China Scholarship Council
- 2019 ● **The 2nd Grade Scholarship of Yonker Environmental Protection Scholarship**
- Yonker Environmental Protection Co. Ltd.
- 2019 ● **The 1st Grade Scholarship of Institute of Urban Environment, Chinese Academy of Sciences**
- Institute of Urban Environment, Chinese Academy of Sciences
- 2019 ● **The Scientific and Technological Innovation Award of Outstanding Graduate Students of the Ecological Society of China**
- Ecological Society of China
- 2018 ● **National Scholarship for M.Sctop 2-3%**
- Ministry of Education of the People's Republic of China
- 2018 ● **The National 3rd Prize in the 2nd Big Data Support Spatial Planning and Design Competition**
- Urban Big Data Special Committee, Chinese Society for Urban Studies
- 2018 ● **“Applied Energy”2018 Summer School Certification**
- The Applied Energy Innovation Institute, Department of Earth System Science, Tsinghua University, China Emission Accounts & Datasets(CEADs)

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- 2018 ● **Merit Students in the academic year 2017–2018**
- University of Chinese Academy of Sciences
- 2018 ● **The 2nd Grade Scholarship of Institute of Urban Environment, Chinese Academy of Sciences**
- Institute of Urban Environment, Chinese Academy of Sciences
- 2018 ● **The 1st Scholarship of Institute of Urban Environment, Chinese Academy of Sciences**
- Institute of Urban Environment, Chinese Academy of Sciences
- 2018 ● **The National Winning Award in 2017 “Sharing Cup” College Student Science and Technology Resource Sharing Service Innovation Contest**
- National Science & Technology Infrastructure Center
- 2017 ● **“Excellent Volunteer” award of 15th User Conference of Esri China**
- Esri China Information Technology Co. Ltd.
- 2017 ● **Merit Students in the academic year 2016–2017**
- University of Chinese Academy of Sciences
- 2015 ● **The National Winning Award in 2015 Esri Cup National Collegiate Developed Contest in GIS-3D Modeling and Design**
- Chinese Society of Geodesy Photogrammetry and Cartography, Esri China Information Technology Co. Ltd.
- 2015 ● **Inovation Scholoarships in the academic year 2014–2015**
- Fujian Normal University
- 2015 ● **The National 3rd Prize in the Smart City Special Event Contest, the 14th Challenge Cup National College Students’ Extracurricular Academic Science and Technology Works Contest**
- Chinese Communist Youth League, China Association for Science and Technology, Ministry of Education of the People’s Republic of China, All-China Students’ Federation

- 2015

Scientific and Technological Innovation award and Nomination, the First Annual Fujian Normal University Student Selection

• Fujian Normal University
- 2015

The School Wining Award during the 9th Challenge Cup National College Students' Extracurricular Academic Science and Technology Works Contest

• Fujian Normal University
- 2014

Inovation Scholoarships in the academic year 2013-2014

• Fujian Normal University
- 2014

The National 3rd Prize in 2014 MathorCup Global Collegiate Mathematical Contest in Modeling

• Chinese Society of Optimization, Overall Planning and Economical Mathematics
- 2014

“Excellent League Cadres” in the academic year 2013-2014

• Fujian Normal University
- 2014

“Excellent League Cadres” in the academic year 2013-2014

• School of Geographical Sciences, Fujian Normal University
- 2013

“Excellent League Cadres” in the academic year 2012-2013

• School of Geographical Sciences, Fujian Normal University



ACADEMIC SERVICE & AFFILIATIONS

- Current

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2024

UrbanParty

• Lecturer
- Current

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2024

International Society for Photogrammetry and Remote Sensing Student Consortium

• Member

Current   2024	<ul style="list-style-type: none"> <li>AI 4D City lab, Hong Kong University of Science and Technology (Guangzhou) <ul style="list-style-type: none"> <li>• Visiting Scholar</li> </ul> </li> </ul>
Current   2019	<ul style="list-style-type: none"> <li>International Institute of Spatial Lifecourse Health (ISLE) <ul style="list-style-type: none"> <li>• Fellow</li> </ul> </li> </ul>
Current   2019	<ul style="list-style-type: none"> <li>GeoDa Center, rgeoda, libgeoda Github Organizations <ul style="list-style-type: none"> <li>• Contributor</li> </ul> </li> </ul>
Current   2015	<ul style="list-style-type: none"> <li>The Organizations "Sustainable Cities &amp; Mobility" <ul style="list-style-type: none"> <li>• Volunteer</li> </ul> </li> </ul>
Current   2019	<ul style="list-style-type: none"> <li>European Heart Journal, Resources, Conservation and Recycling, Sustainable Cities and Society, International Journal of Geographical Information Science, Cities, Information Processing &amp; Management, Methods in Ecology and Evolution, International Journal of Digital Earth, GIScience &amp; Remote Sensing, Carbon Management, City and environment interactions, Frontiers in Public Health, Frontiers in Environmental Science, Frontiers in Earth Science, Scientific Reports, Data in Brief, The Journal of Open Source Software, Shanghai Urban Planning Review <ul style="list-style-type: none"> <li>• Reviewer</li> </ul> </li> </ul>
2024	<ul style="list-style-type: none"> <li>2nd World Congress of Geography, "Research on Global Health Wellbeing and Health Geography" session <ul style="list-style-type: none"> <li>• Convener</li> </ul> </li> </ul>
2024	<ul style="list-style-type: none"> <li>4th International Symposium on Spatial Lifecourse Health, "Application of System Simulation Models in Health Domain" session <ul style="list-style-type: none"> <li>• Convener</li> </ul> </li> </ul>
2024	<ul style="list-style-type: none"> <li>4th International Symposium on Spatial Lifecourse Health Workshop <ul style="list-style-type: none"> <li>• Lecturer</li> </ul> </li> </ul>
2024	<ul style="list-style-type: none"> <li>Heywhale Community and GISphere, 'Python x GIS' GeoAI Workshop <ul style="list-style-type: none"> <li>• Lecturer</li> </ul> </li> </ul>

- 2024 • **Training course on 'Spatial Epidemiology Analysis Methods and Applications'**
  - Lecturer
- 2023  
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2020 • **GISphere**
  - Editor Board, Council Member, Editor in chief of Wechat
- 2020  
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2018 • **Aliyunqi Community**
  - Expert
- 2019  
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2017 • **International Association of Landscape Ecology of China(IALE-China)**
  - Member
- 2017  
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2016 • **Green Bike-Transit**
  - Volunteer
- 2017  
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2013 • **The Geographical Tribune of Youth**
  - Founder, Editor in Chief, Associate Editor, Assistant Editor in Chief



## PUBLICATIONS-PEER-REVIEWED JOURNAL ARTICLES

- 2025 • **Built environments and obesity: A framework considering residences, commute routes, and workplaces**  
Cities
  - Chun Yin, Zhe Zhang, Shaoqing Dai, Yiyi Chen
  - 160: 105842. [doi:10.1016/j.cities.2025.105842](https://doi.org/10.1016/j.cities.2025.105842).
  - SSCI, IF=6.0
- 2025 • **Toward 3D hedonic price model for vertically developed cities using street view images and machine learning methods**  
Habitat International
  - Yue Ying, Shaoqing Dai\*, Mila Koeva, Monika Kuffer, Claudio Persello, Wen Zhou, Jaap Zevenbergen
  - 156: 103288. [doi:10.1016/j.habitatint.2025.103288](https://doi.org/10.1016/j.habitatint.2025.103288).
  - SSCI, IF=6.5

- 2025 ● **Heterogeneous impacts of and vulnerabilities to the COVID-19 pandemic**  
Landscape Ecology
- Manyao Li#, **Shaoqing Dai**#, Yuanyuan Shi#, Kun Qin#, Ross Brownson, Yan Kestens, Miyang Luo, Shiyong Liu, Jing Su, Gordon G. Liu, Shujuan Yang, Peng Jia
  - 40: 32. doi:10.1007/s10980-024-02039-z
  - SCI, IF=4.0
- 2024 ● **Long-term exposure to PM<sub>2.5</sub> chemical constituents and diabetes: evidence from a multi-center cohort study in China**  
The Lancet Regional Health–Western Pacific
- Changwei Cai, Shuzhen Zhu, Mingfang Qin, Xiaoqing Li, Chuanteng Feng, Bin Yu, **Shaoqing Dai**, Ge Qiu, Yuchen Li, Tingting Ye, Wenling Zhong, Ying Shao, Lan Zhang, Peng Jia, Shujuan Yang
  - 16(6): 1028. doi:10.1016/j.lanwpc.2024.101100
  - SCI, IF=7.6
- 2024 ● **Street view imagery-based built environment auditing tools: a systematic review**  
International Journal of Geographical Information Science
- **Shaoqing Dai**, Yuchen Li, Alfred Stein, Shujuan Yang, Peng Jia.
  - 38(6): 1136-1157. doi:10.1080/13658816.2024.2336034
  - SCI/SSCI, IF=4.3
- 2024 ● **Spatiotemporal patterns of air pollutants over the epidemic course: a national study in China**  
Remote Sensing
- Kun Qin#, Zhanpeng Wang#, **Shaoqing Dai**#, Yuchen Li, Manyao Li, Chen Li, Ge Qiu, Yuanyuan Shi, Chun Yin, Shujuan Yang, Peng Jia\*
  - 16(7): 1298. doi:10.3390/rs16071298.
  - SCI, IF=4.2
- 2024 ● **State of the art of lifecourse cohort establishment**  
China CDC Weekly
- **Shaoqing Dai**, Ge Qiu, Yuchen Li, Shuhan Yang, Shujuan Yang, Peng Jia
  - 6(14), 300–304. doi:10.46234/ccdcw2024.058.
  - SCI/SSCI, IF = 4.3
- 2024 ● **Long-term dynamic monitoring and driving force analysis of eco-environmental quality in China**  
Remote Sensing
- Weiwei Zhang, Zixi Liu, Kun Qin, **Shaoqing Dai**, Huiyuan Lu, Miao Lu, Jianwan Ji, Zhaohui Yang, Chao Chen, Peng Jia
  - 16(6): 1028 doi:10.3390/rs16061028.
  - SCI, IF=4.2



- 2024 ● **Mixed land use has opposite associations with subjective well-being through social capital: Spatial heterogeneity in residential and workplace neighborhoods**  
Travel Behaviour and Society  
• Chun Yin, Jiahang Liu, Shaoqing Dai, Bindong Sun  
• 35, 100724. [doi:10.1016/j.tbs.2023.100724](https://doi.org/10.1016/j.tbs.2023.100724).  
• SSCI, IF=5.1
- 2024 ● **Local carbon emission zone construction in the highly urbanized regions: Application of residential and transport CO<sub>2</sub> emissions in Shanghai, China**  
Building and Environment  
• Yunfeng Tian, Shudi Zuo, Jiaheng Ju, Shaoqing Dai, Yin Ren, Panfeng Dou.  
• 247, 111007. [doi:10.1016/j.buildenv.2023.111007](https://doi.org/10.1016/j.buildenv.2023.111007).  
• SCI, IF=7.1
- 2023 ● **Assessing Spatiotemporal Bikeability Using Multi-Source Geospatial Big Data: A Case Study of Xiamen, China**  
International Journal of Applied Earth Observation and Geoinformation  
• Shaoqing Dai, Wufan Zhao, Yanwen Wang, Xiao Huang, Zhidong Chen, Jinghan Lei, Alfred Stein, Peng Jia.  
• 125, 103539. [doi:10.1016/j.jag.2023.103539](https://doi.org/10.1016/j.jag.2023.103539).  
• SCI, IF=7.6
- 2023 ● **Development and validation of an age-sex-ethnicity-specific metabolic syndrome score in the Chinese adults**  
Nature Communications  
• Shujuan Yang, Bin Yu, Wanqi Yu, Shaoqing Dai, Chuanteng Feng, Ying Shao, Xing Zhao, Xiaoqing Li, Tianjing He, Peng Jia.  
• 14(1), 6988. [doi:10.1038/s41467-023-42423-y](https://doi.org/10.1038/s41467-023-42423-y)  
• SCI, IF=14.7
- 2023 ● **Environmental determinants of childhood obesity: a meta-analysis**  
The Lancet Global Health  
• Peng Jia, Yuanyuan Shi, Qi Jiang, Shaoqing Dai, Bin Yu, Shuhan Yang, Ge Qiu, Shujuan Yang.  
• 11, S7. [doi:10.1016/S2214-109X\(23\)00092-X](https://doi.org/10.1016/S2214-109X(23)00092-X).  
• SCI, IF=20.0

- **The importance of the functional mixed entropy for the explanation of residential and transport CO<sub>2</sub> emissions in the urban center of China**  journal of Cleaner Production

2022

  - Shudi Zuo, **Shaoqing Dai**, Jiaheng Ju, Fanxin Meng, Yin Ren, Yunfeng Tian, Kaide Wang
  - 380, 134947. [doi:10.1016/j.jclepro.2022.134947](https://doi.org/10.1016/j.jclepro.2022.134947).
  - SCI, IF=9.7
  
- 2022 ● **Global spreading of Omicron variant of COVID-19**

Geospatial Health

  - Pengxin Zhang, Shuhan Yang, **Shaoqing Dai**, Darren How Jin Aik, Shujuan Yang, Peng Jia.
  - Geospatial Health. 17. [doi:10.4081/gh.2022.1083](https://doi.org/10.4081/gh.2022.1083).
  - SCI, IF=1.0
  
- 2022 ● **Quantifying urban mass gain and loss by a GIS - based material stocks and flows analysis. Journal of Industrial Ecology**

Journal of Industrial Ecology

  - Yupeng Liu, Jiajia Li, Weiqiang Chen, Lulu Song, **Shaoqing Dai**.
  - 26(3), 1051-1060. [doi:10.1111/jiec.13252](https://doi.org/10.1111/jiec.13252).
  - SCI, IF=4.9
  
- 2022 ● **Identification of two-dimensional copper signatures in human blood for bladder cancer with machine learning**

Chemical Science

  - Weichao Wang, Xian Liu, Changwen Zhang, Fei Sheng, Shanjun Song, Penghui Li, **Shaoqing Dai**, Bin Wang, Dawei Lu, Luyao Zhang, Xuezhi Yang, Zhihong Zhang, Sijin Liu, Aiqian Zhang, Qian Liu, Guibin Jiang.
  - 3(6), 1648-1656. [doi:10.1039/D1SC06156A](https://doi.org/10.1039/D1SC06156A).
  - SCI, IF=7.6
  
- 2021 ● **Improving plot-level model of forest biomass: A combined approach using machine learning with spatial statistics**

Forests

  - **Shaoqing Dai**, XiaomanZheng, Lei Gao, Chengdong Xu, Shudi Zuo, Qi Chen, Xiaohua Wei, Yin Ren
  - 12(12), 1663. [doi:10.3390/f12121663](https://doi.org/10.3390/f12121663).
  - SCI, IF=2.4
  
- 2021 ● **New approaches to anticipate the risk of reverse zoonosis**

Trends in Ecology & Evolution

  - Peng Jia, **Shaoqing Dai**, Tong Wu, Shujuan Yang.
  - 36(7), 580-590. [doi:10.1016/j.tree.2021.03.012](https://doi.org/10.1016/j.tree.2021.03.012).
  - SCI, IF=16.7

- 2021 ● **Refined water security assessment for sustainable water management: A case study of 15 key cities in the Yangtze River Delta, China**  
Journal of Environmental Management
- Panfeng Dou, Shudi Zuo, Yin Ren, Manuel J. Rodriguez, Shaoqing Dai.
  - 290, 112588. doi:[10.1016/j.jenvman.2021.112588](https://doi.org/10.1016/j.jenvman.2021.112588).
  - SCI, IF=8.0
- 2021 ● **Pitfalls in Modeling Asymptomatic COVID-19 Infection**  
Frontiers in Public Health
- Shujuan Yang, Shaoqing Dai, Yulin Huang, Peng Jia.
  - 9, 593176. doi:[10.3389/fpubh.2021.593176](https://doi.org/10.3389/fpubh.2021.593176).
  - SCI, IF=3.0
- 2021 ● **High spatial resolution mapping of steel resources accumulated above ground in mainland China: Past trends and future prospects**  
Journal of Cleaner Production
- Lulu Song, Shaoqing Dai, Zhi Cao, Yupeng Liu, Weiqiang Chen.
  - 297, 144609. doi:[10.1016/j.jclepro.2021.126482](https://doi.org/10.1016/j.jclepro.2021.126482).
  - SCI, IF=9.7
- 2020 ● **The direct and interactive impacts of hydrological factors on bacillary dysentery across different geographical regions in central China.**  
Science of the Total Environment
- Shudi Zuo, Lianping Yang, Panfeng Dou, Hung Chak Ho, SQ. Dai, Wenjun Ma, Yin Ren, Cunrui Huang.
  - 764, 144609. doi:[10.1016/j.scitotenv.2020.144609](https://doi.org/10.1016/j.scitotenv.2020.144609).
  - SCI, IF=8.2
- 2020 ● **Investigating the uncertainties propagation analysis of CO<sub>2</sub> emissions emissions gridded maps at the urban scales: a case study of Jinjiang city, China.**  
Remote Sensing
- Shaoqing Dai, Yin Ren, Shudi Zuo, Chengyi Lai, Jiajia Li, Shengyu Xie, Bingchu Chen.
  - 12(23), 3932. doi:[10.3390/rs12233932](https://doi.org/10.3390/rs12233932)
  - SCI, IF=4.2
- 2020 ● **The Evaluation of Health Effect of Short-term Exposure to PM<sub>2.5</sub> during Spring Festival: A Case Study of 25 Cities in the Yangtze River Delta**  
Shanghai Urban Planning Review
- Shaoqing Dai, Jiajia Li, Weixu Yang, Fangyu Chen, Huixian Jiang.
  - 05, 22-29. doi:[10.11982/j.supr.20200504](https://doi.org/10.11982/j.supr.20200504).
  - in Chinese

- 2020 ● **Natural environment and childhood obesity: A systematic review**  
Obesity Reviews  
• Peng Jia, **Shaoqing Dai**, Kristen. E. Rohli, Robert V. Rohli, Yanan Ma, Chao Yu, Xiongfeng Pan, Weiqi Zhou.  
• 1-9. [doi:10.1111/obr.13097](https://doi.org/10.1111/obr.13097)  
• SCI, IF=8.0
- 2020 ● **Response of syntrophic bacterial and methanogenic archaeal communities in paddy soil to soil type and phenological period of rice growth**  
Journal of Cleaner Production  
• XiaoFang Pan, Hu Li, Lixin Zhao, Xiaoru Yang, Jianqiang Su, **Shaoqing Dai**, Jing Ning, Chunxing Li, Guanqing Cai, GeFu Zhu.  
• 278, 123418. [doi:10.1016/j.jclepro.2020.123418](https://doi.org/10.1016/j.jclepro.2020.123418)  
• SCI, IF=9.7
- 2020 ● **Green space access in the neighbourhood and childhood obesity**  
Obesity Reviews  
• Peng Jia, Xinxi Cao, Hongxi Yang, **Shaoqing Dai**, Pan He, Ganlin Huang, Tong Wu, Yaogang Wang.  
• 1-12. [doi:10.1111/obr.13100](https://doi.org/10.1111/obr.13100)  
• SCI, IF=8.0
- 2020 ● **Neighbourhood speed limit and childhood obesity**  
Obesity Reviews  
• Miyang Luo, Hanqi Li, Xiongfeng Pan, Teng Fei, **Shaoqing Dai**, Ge Qiu, Yuxuan Zou, Heleen Vos, Jiayou Luo, Peng Jia.  
• 1-11. [doi:10.1111/obr.13052](https://doi.org/10.1111/obr.13052)  
• SCI, IF=8.0
- 2020 ● **Treatment of high-ash industrial sludge for producing improved char with low heavy metal toxicity**  
Journal of Analytical and Applied Pyrolysis  
• Shengyu Xie, Guangwei Yu, Chunxing Li, Jie Li, Gang Wang, **Shaoqing Dai**, Yin Wang.  
• 150, 104866. [doi:10.1016/j.jaap.2020.104866](https://doi.org/10.1016/j.jaap.2020.104866)  
• SCI, IF=5.8
- 2020 ● **Access to bike lanes and childhood obesity: A systematic review and meta - analysis**  
Obesity Reviews  
• Xiongfeng Pan, Li Zhao, Jiayou Luo, Yinhao Li, Lin Zhang, Tong Wu, Melody Smith, **Shaoqing Dai**, Peng Jia.  
• 1-11. [doi:10.1111/obr.13042](https://doi.org/10.1111/obr.13042)  
• SCI, IF=8.0

- 2020 ● **A spatial database of CO<sub>2</sub> emissions, urban form fragmentation and city-scale effect related impact factors for the low carbon urban system in Jinjiang city, China**  
Data in Brief
- Shaoqing Dai, Shudi Zuo, Yin Ren.
  - 29, 105274. doi:10.1016/j.dib.2020.105274
  - ESCI, IF=1.0
- 2020 ● **More fragmentized urban form more CO<sub>2</sub> emissions? An comprehensive relationship from the combination analysis across different scales**  
Journal of Cleaner Production
- Shudi Zuo, Shaoqing Dai, Yin Ren.
  - 244, 118659. doi:10.1016/j.jclepro.2019.118659
  - SCI, IF=9.7
- 2019 ● **The impacts of climate and land use/land cover changes on water yield service in Ningbo region**  
Acta Scientiae Circumstantiae
- Panfeng Dou, Shudi Zuo, Yin Ren, Shaoqing Dai, Guoliang Yun
  - 39(7), 2398-2409. doi:10.13671/j.hjkxxb.2019.0122
  - CSCD, in Chinese
- 2019 ● **A GIS-based high spatial resolution assessment of large-scale PV power generation potential and associated CO<sub>2</sub> emission reduction in China**  
Applied Energy
- Qing Yang, Tianyue Huang, Saige Wang, Jiashuo Li, Shaoqing Dai, Sebastian Wright, Yuxuan Wang, Huaiwu Peng.
  - 247, 254-269. doi:10.1016/j.apenergy.2019.04.005
  - SCI, IF=10.1
- 2019 ● **PM<sub>2.5</sub> spatiotemporal evolution and drivers in the Yangtze River Delta between 2005 and 2015**  
Atmosphere
- Guoliang Yun, Yuanrong He, Yuantong Jiang, Panfeng Dou, Shaoqing Dai.
  - 10(2), 55. doi:10.3390/atmos10020055
  - SCI, IF=2.5
- 2018 ● **Determining the Mechanisms that Influence the Surface Temperature of Urban Forest Canopies by Combining Remote Sensing Methods, Ground Observations, and Spatial Statistical Models**  
Remote Sensing
- Shudi Zuo, Shaoqing Dai, Xiaodong Song, Chengdong Xu, Yilan Liao, Weiyan Chang, Qi Chen, Yaying Li, Jianfeng Tang, Wang Man, Yin Ren.
  - 10(11), 1814. doi:10.3390/rs10111814
  - SCI, IF=4.2

- 2018 ● **Analysis of Heavy Metal Sources in the Soil of Riverbanks Across an Urbanization Gradient**  
International Journal of Environmental Research and Public Health  
• Shudi Zuo, Shaoqing Dai, Yaying Li, Jianfeng Tang, Yin Ren.  
• 15(10), 2175. doi:10.3390/ijerph15102175  
• SCI, IF=4.6
- 2018 ● **Influence of walking environment on robbery, snatch and theft crime in urban area, H city, China**  
Scientia Geographica Sinica  
• Shaoqing Dai, Huixian Jiang, Jiajia Li, Xian Su, Juan Wu, Yin Ren.  
• 38(8), 1235-1244. doi:10.13249/j.cnki.sgs.2018.08.005  
• CSCD, in Chinese
- 2018 ● **Individual and Interactive Influences of Anthropogenic and Ecological Factors on Forest PM<sub>2.5</sub> Concentrations at an Urban Scale**  
Remote Sensing  
• Guoliang Yun, Shudi Zuo, Shaoqing Dai, Xiaodong. Song, Chengdong Xu, Yilan Liao, Peiqiang Zhao, Weiyin Chang, Qi Chen, Yaying Li, Jianfeng Tang, Wang Man, Yin Ren.  
• 10(4), 521. doi:10.3390/rs10040521  
• SCI, IF=4.2
- 2018 ● **Research on the effects of different policy tools on China's emissions reduction innovation**  
China Population, Resources and Environment  
• Qin Ye, Gang Zeng, Shaoqing Dai, Fenglong Wang.  
• 28(02), 115-122. doi:10.12062/cpre.20170915  
• CSCD, in Chinese
- 2017 ● **Research on the effects of command-and-control and market-oriented policy tools on China's energy conservation and emissions reduction innovation**  
Chinese Journal of Population Resources and Environment  
• Qin Ye, Shaoqing Dai, Gang Zeng.  
• 16(1), 1-11. doi:10.1080/10042857.2017.1418273.  
• ESCI, IF=3.9
- 2017 ● **Landscape-Scale Simulation Analysis of Waterlogging and Sponge City Planning for a Central Urban Area in Fuzhou City, China.**  
International Low Impact Development Conference China 2016: LID Applications in Sponge City Projects.  
• Shaoqing Dai, Jiajia Li, Shudi Zuo, Yin Ren, Huixian Jiang.  
• 251-260. doi:10.1061/9780784481042.028  
• EI

- 2016 ● **The Analysis of Urban Spatial Development Pattern in Beijing Based on the Big Data of Government**  
Geomatics World  
· Miaoyi Li, Shaoqing Dai, Jingyuan Wang, Zhenjiang Shen.  
· 23(3), 20-26. doi:10.3969/j.issn.1672-1586.2016.03.004  
· JST



## PUBLICATIONS-BOOK CHAPTER

- 2025 ● **Healthcare service allocation and planning & Emerging fields in health geography**  
In Health Geography(in Chinese) edited by Peng Jia, Beijing: China Higher Education Press. IBSN:978-7-04-063403-7  
· Yuanyuan Shi, Shaoqing Dai, Peng Jia
- 2019 ● **Individual and Interactive Influences of Anthropogenic and Ecological Factors on Forest PM<sub>2.5</sub> Concentrations at an Urban Scale**  
Advances in Quantitative Remote Sensing in China-In Memory of Prof. Xiaowen Li  
· Guoliang Yun, Shudi Zuo, Shaoqing Dai, Xiaodong. Song, Chengdong Xu, Yilan Liao, Peiqiang Zhao, Weiyin Chang, Qi Chen, Yaying Li, Jianfeng Tang, Wang Man, Yin Ren.



## PUBLICATIONS-PATENT

- 2020 ● **Improving the accuracy of forest biomass estimate using source analysis and machine learning**  
CN111814397A  
· Yin Ren, Xiaoman Zheng, Shaoqing Dai, Qi Chen, Shudi Zuo
- 2019 ● **A forest inventory biomass estimation model by multi-sources data fusion**  
CN110162872A  
· Yin Ren, Shaoqing Dai, Shudi Zuo, Xiaoman Zheng.
- 2018 ● **A mixed-effect model for estimation of large area subtropical forest biomass**  
CN108959705A  
· Qi Chen, Yin Ren, Xiaoman Zheng, Shudi Zuo, Shaoqing Dai



## PUBLICATIONS-SOFTWARE COPYRIGHT

- 2019
- **A water safety monition system based on environmental IOT data and InVEST model. V1.0**  
• RN: 2019SR0517519
- 2018
- **A water conservation service monition system based on environmental IOT data**  
• RN: 2018SR745897



## PUBLICATIONS-OPEN DATASET & CODE

- 2024
- **Code and data to support 'Street view imagery for built environment auditing: a systematic review' (Version 5)**  
Zenodo.  
• Shaoqing Dai, Alfred Stein, Yuchen Li, Shujuan Yang, Peng Jia.  
• [doi:10.5281/zenodo.10724305](https://doi.org/10.5281/zenodo.10724305)
- 2020
- **GISerDaiShaoqing/3dmodelFJNU 1.0 (Version 1.0)**  
Zenodo.  
• Shaoqing Dai  
• [doi:10.5281/zenodo.4277977](https://doi.org/10.5281/zenodo.4277977)
- 2020
- **GISerDaiShaoqing/Urban-Carbon-Dioxide-sources-gridded-maps-and-itsdetemination-in-Jinjiang-city 0.6 (Version 0.6)**  
Zenodo.  
• Shaoqing Dai, Shudi Zuo, Yin Ren.  
• [doi:10.5281/zenodo.3566072](https://doi.org/10.5281/zenodo.3566072)



## RESEARCH PROJECTS

- 2028  
|  
2025
- **The precise monitoring and analysis for residential environment risk factors and health effects among vulnerable populations**  
Special Program for the Introduction of Overseas Postdoctoral Talents  
• PI



2026  
|  
2024

● **Early Identification and Screening of Risk Factors for Chronic Complications in Diabetes Patients by Combining Traditional Chinese and Western Medicine**

Research Project of Collaborative Chronic Disease Management by Traditional Chinese and Western Medicine

· Investigator

2026  
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2023

● **Evaluation and prevention of health risks in the community home environment for the elderly and children, and development of appropriate products**

National Key Research and Development Plan(2023YFC3604704)

· Investigator

2025  
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2022

● **The mechanism of the impact of urban neighborhood-level walkability on child obesity**

National Natural Science Foundation of China(42271433)

· Investigator

2021

● **Investigating the Changes of Residents' Daily Behaviors, Lifestyles, and Built Environment During the COVID-19 Pandemic**

WeSpace Academic Support Plan in 2020: "Tsinghua-Tencent" Emerging Technologies Future Urban Space project

· PI

2020  
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2016

● **'Research on the key technology research and integration demonstration of urban agglomeration ecological security in the Yangtze River Delta**

National Key Research and Development Plan(2016YFC0502704)

· Investigator

2019  
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2018

● **The construction of Typhoon Disaster Assessment Index Based on GIS and Multi-source Remote Sensing Data in Fujian Province**

Open Fund of the Big Data Institute of Digital Natural Disaster Monitoring in Fujian (NDMBD2018001)

· Investigator

2018  
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2015

● **Scaling up of carbon sequestration for Eucalyptus plantations based on ETKF-3DVAR hybrid data assimilation**

National Natural Science Foundation of China(31470578)

· Investigator

2015  
|  
2014

● **The Optimization Model of High Education Staff's Refuge Space Under Earthquake Disaster**

The Technological Innovation Plan of University Students, Fujian Normal University(cxsl-2014137)

· PI



## PRESENTATIONS

- 2024

●

**Development of the frequently used built environmental auditing and simulation tools in health domain**

4th International Symposium on Spatial Lifecourse Health

📍 Wuhan, China

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- 2024

●

**Development of the frequently used environmental exposome observation tools in health domain**

2024 Health Geography Youth Scholars Forum

📍 Zhuhai, China

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- 2024

●

**Bridging environment and human health: from earth observation to human-center observation(invited)**

AI 4D City lab, Hong Kong University of Science and Technology (Guangzhou)

📍 Guangzhou, China

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- 2024

●

**Assessment of physical activity opportunities based on multi-source geospatial data**

9th Youth Geoscience Forum

📍 Xiamen, China

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- 2024

●

**The frequently used built environmental auditing tools in the health domain**

1st National Remote Sensing and Geographic conference

📍 Nanjing, China

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- 2024

●

**Health geography studies based on spatial lifecourse epidemiology framework**

Institute of Urban Environment, Chinese Academy of Sciences

📍 Xiamen, China

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- 2023

●

**Seeking your interest and going ahead will contribute to success(invited)**

Xiamen No.1 High School of Fujian

📍 Xiamen, China

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- 2022

●

**Do neighborhood boundaries matter for examining the associations between environmental factors and obesity(invited)**

The 29th International Conference on Geoinformatics in 2022 session 10-2 GIScience for Public Health

📍 Beijing, China

.

- 2020

**The Evaluation of Health Effect of Short-term Exposure to PM<sub>2.5</sub> during Spring Festival: A Case Study of 25 Cities in the Yangtze River Delta(invited)**

The Workshop of 16th Spatial Behavior and Planning & Digitalization and Fine-Grained Governance

 Xiamen, China
- 2020

**What is geography? From coronavirus disease 2019 to Bei Dou Systems**

Tong An No.1 High School of Fujian

 Xiamen, China
- 2018

**The Scale Effect, Zoning Effect of Geographical Features, the Modified Areal Unit Problem and the Chanlleges of Spatial Stastistics**

11th Chinese R Language Conference

 Beijing, China
- 2018

**High-Resolution Mapping of Direct CO<sub>2</sub> Emissions and Uncertainties at the Urban Scale**

13th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences(Spatial Accuracy 2018)

 Beijing, China
- 2017

**The Environmental Effect of Urban Form on PM<sub>2.5</sub>: A Case Study of Beijing-Tianjin-Hebei Urban Agglomeration**

9th Chinese Landscape Eoclogy workshop

 Guangzhou, China
- 2017

**The Assement Platform of Urban Forest Ecosystem Servcie Based on InVEST model and IOT(invited),**

2rd urban environment long-term monitor and sustainable development workshop

 Shanghai, China
- 2016

**The Criminal Geographical Analysis about Walking Environment of Urban**

The Workshop of 12th Spatial Behavior and Planning & Spatial-Temporal Behavior and Social Planning Research

 Beijing, China

- 2016
- **Transportation Planning of Smart City on the Basis of Data Augmentation Design Under the Perspective of Humanism: A Case Study of Fuzhou's Cangshan District**  
10th annual conference of International Association of China Planning  
Beijing, China

## TEACHING EXPERIENCES

- Current  
|  
2024
- **Applications of 3S technology, Information and Communications Technology, Location Based Service and Artificial Intelligence in Health Geography**  
School of Resource and Environmental Science, Wuhan University  
• 60 students, 4 class hours
- Current  
|  
2024
- **Applications of Remote Sensing technology in Public Health and Diseases Prevention**  
China CDC National Institute of Parasitic Diseases  
• 60 students, 1 class hours
- Current  
|  
2024
- **Applications of 3S technology, Information and Communications Technology, Location Based Service, Artificial Intelligence, and Complex Science in Health Geography**  
School of Resource and Environmental Science, Wuhan University  
• 16 students, 9 class hours



## SELECTED POSTERS

- 2017
- **Quantifying the linear and nonlinear relations between the urban form fragmentation and the carbon emission distribution**  
2017 AGU Fall Meeting  
New Orleans, USA
- 2017
- **The relationship between the fragmented urban form landscape and the carbon emission distribution at different resolutions**  
9th Lecture of Modern Ecology  
Shanghai, China
- 2016
- **The Simulation Analysis of Waterlogging and the Sponge City Planning Control of Central Urban Area in Fuzhou City**  
2016 International Low Impact Development Conference  
Beijing, China