

CURRICULUM VITAE**PERSONAL INFORMATION:**Name:

Liang-Jun Zhu (朱良君)

Position:

Assistant Professor

Business Address:

Room D411, 11A Datun Road, Chaoyang District, Beijing 100101, P.R. China

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Languages:

Chinese, English

Websites:Homepage <https://zhulj.net>Github <https://github.com/crazyzlj>Academic pages [Google Scholar](#), [Publons](#), [ORCID](#), [ResearchGate](#)**RESEARCH INTERESTS:**

Watershed process modeling, spatial optimization of watershed management practice scenario, intelligent geocomputation

EDUCATION:

2014–2019

Ph.D. (GIS), University of Chinese Academy Sciences, Beijing, P.R.C.**Dissertation:** Method of optimizing spatial configuration of beneficial watershed management practices in a unit-boundary adaptive manner**Supervisors:** Professor [A-Xing Zhu](#) and Professor [Cheng-Zhi Qin](#)

2011–2014

M.Sc. (Physical Geography), Beijing Normal University, Beijing, P.R.C.**Thesis:** A laser scanner for surface roughness and rill morphology measurement based on linear structured light**Supervisor:** Professor [Guang-Hui Zhang](#)

2007–2011

B.Sc. (GIS), Northwest A&F University, Yangling, Shaanxi, P.R.C.**PROFESSIONAL EMPLOYMENT:**

07/2019 to date:

Assistant Professor, State Key Laboratory of Resources and Environmental Information System (LREIS), Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Chinese Academy Sciences (CAS)

AWARDS, HONORS, AND SCHOLARSHIPS:

2012–2013 National scholarship for graduate students, Beijing Normal University

2007–2008 National scholarship for undergraduate students, Northwest A&F University

PUBLICATIONS AND RESEARCH PAPERS:As of **Nov. 2021**, totally **12** peer-reviewed journal articles (including **5** SCI-indexed papers) as the first author and/or corresponding author, **10** peer-reviewed journal articles

(including 3 SCI-indexed papers and 1 SSCI-indexed paper) as co-author have been published.

Journal Articles of first/co-first (#)/corresponding author (*):

- [12] **Zhu, L.-J.**, Qin, C.-Z.*, Zhu, A.-X., **2021**. Spatial optimization of watershed best management practice scenarios based on boundary-adaptive configuration units. *Progress in Physical Geography: Earth and Environment*, 45(2), 207–227. doi:10.1177/0309133320939002
- [11] **Zhu, L.-J.**, Liu, J.*, Qin, C.-Z.*, Zhu, A.-X., **2019**. A modular and parallelized watershed modeling framework. *Environmental Modelling & Software*, 122, 104526. doi:10.1016/j.envsoft.2019.104526
- [10] **Zhu, L.-J.**, Qin, C.-Z.*, Zhu, A.-X., Liu, J., Wu, H., **2019**. Effects of different spatial configuration units for the spatial optimization of watershed best management practice scenarios. *Water*, 11(2), 262. doi:10.3390/w11020262
- [9] Qin, C.-Z., Gao, H.-R., **Zhu, L.-J.***, Zhu, A.-X., Liu, J.-Z., Wu, H., **2018**. Spatial optimization of watershed best management practices based on slope position units. *Journal of Soil and Water Conservation*, 73(5):504–517. doi:10.2489/jswc.73.5.504
- [8] **Zhu, L.-J.**, Zhu, A.-X., Qin, C.-Z.*, Liu, J.-Z., **2018**. Automatic approach for deriving fuzzy slope positions. *Geomorphology*, 304:173–183. doi:10.1016/j.geomorph.2017.12.024
- [7] Shi, Y., **Zhu, L.***, Qin, C., Zhu, A., **2021**. Spatial optimization of watershed best management practices based on slope position-field units. *Journal of Geo-information Science (in Chinese with English abstract)*, 23(4):564–575. [史亚星, **朱良君***, 秦承志, 朱阿兴. **2021**. 基于坡位-地块单元的流域最佳管理措施空间优化配置方法. 地球信息科学学报, 23(4):564–575.] doi:10.12082/dqxxkx.2021.200335
- [6] Zhu, A.-X., **Zhu, L.-J.***, Shi, Y., Qin, C.-Z., Liu, J., **2019**. Integrated watershed modeling and scenario analysis: a new paradigm for integrated study of physical geography? *Progress in Geography (in Chinese with English abstract)*, 38(8):1111–1122. [朱阿兴, **朱良君***, 史亚星, 秦承志, 刘军志. **2019**. 流域系统综合模拟与情景分析——自然地理综合研究的新范式? 地理科学进展, 38(8):1111–1122.] doi:10.18306/dlkxjz.2019.08.001
- [5] Wang, L., **Zhu, L.-J.***, Zhu, A.-X., Liu, J.-Z., Shen, L., **2016**. Effect of spatial unit delineation on simulating non-point source pollution by SWAT model. *Journal of Shenyang Agricultural University (in Chinese with English abstract)*, 47(4):460–466. [王琳, **朱良君***, 朱阿兴, 刘军志, 沈琳. **2016**. SWAT模型非点源污染模拟对空间单元划分的响应. 沈阳农业大学学报, 47(4):460–466.] doi:10.3969/j.issn.1000-1700.2016.04.012
- [4] **Zhu, L.-J.**, Zhang, G.-H.*, Li, Z.-W., Geng, R., **2015**. A laser scanner system for rill morphology measurement based on linear structured light. *Mountain Research (in Chinese with English abstract)*, 33(6):770–776. [**朱良君***, 张光辉*, 李振炜, 耿韧. **2015**. 一种基于线结构光技术的细沟形态测量系统. 山地学报, 33(6):770–776.] doi:10.16089/j.cnki.1008-2786.000093

- [3] **Zhu, L.-J.**, Zhang, G.-H.*. **2013**. Review of measurement and quantification of surface microtopography. *Science of Soil and Water Conservation (in Chinese with English abstract)*, 11(5):114–122. [朱良君, 张光辉*. **2013**. 地表微地形测量及定量化方法研究综述. *中国水土保持科学*, 11(5):114–122.] doi:10.16843/j.sswc.2013.05.018
- [2] **Zhu, L.-J.**, Zhang, G.-H.*, Hu, G.-F., Wang, B., **2013**. Study on evaluating ultrasonic measurement system of overland flow depth. *Journal of Soil and Water Conservation (in Chinese with English abstract)*, 27(1):235–239. [朱良君, 张光辉*, 胡国芳, 王兵. **2013**. 坡面流超声波水深测量系统研究. *水土保持学报*, 27(1):235–239.] doi:10.13870/j.cnki.stbcxb.2013.01.044
- [1] **Zhu, L.-J.**, Zhang, G.-H.*, Ren, Z.-P., **2012**. Comparing four methods for soil infiltration measurement. *Bulletin of Soil and Water Conservation (in Chinese with English abstract)*, 32(6):163–167. [朱良君, 张光辉*, 任宗萍. **2012**. 4种土壤入渗测定方法的比较. *水土保持通报*, 32(6):163–167.] doi:10.13961/j.cnki.stbctb.2012.06.050

Journal Articles of co-author:

- [10] Wang, Y.-W., Qin, C.-Z.*, Cheng, W.-M., Zhu, A.-X., Wang, Y.-J., **Zhu, L.-J.**, **2021**. Automatic crater detection by training random forest classifiers with legacy crater map and spatial structural information derived from digital terrain analysis. *Annals of the American Association of Geographers*, 1–22. (SSCI) doi:10.1080/24694452.2021.1960473
- [9] Gao, H.-R., Qin, C.-Z.*, **Zhu, L.-J.**, Zhu, A.-X., Liu, J.-Z., Wu, H., **2018**. Using slope positions as spatial units for optimizing spatial configuration of watershed management practices. *Journal of Geo-information Science (in Chinese with English abstract)*, 20(6):781–790. [高会然, 秦承志*, 朱良君, 朱阿兴, 刘军志, 吴辉. **2018**. 以坡位为空间配置单元的流域管理措施情景优化方法. *地球信息科学学报*, 20(6):781–790.] doi:10.12082/dqxxkx.2018.170622
- [8] Wang, L., Zhang, G.*, **Zhu, L.**, Wang, H., **2017**. Biocrust wetting induced change in soil surface roughness as influenced by biocrust type, coverage and wetting patterns. *Geoderma*, 306:1–9. doi:10.1016/j.geoderma.2017.06.032
- [7] Gao, H.-R., Shen, L., Liu, J.-Z.*, Zhu, A.-X., Qin, C.-Z., **Zhu, L.-J.**, **2017**. Review on the simulation of non-point source pollution in the Hilly region of Southern China. *Journal of Geo-information Science (in Chinese with English abstract)*, 19(8):1080–1088. [高会然, 沈琳, 刘军志*, 朱阿兴, 秦承志, 朱良君. **2017**. 中国南方丘陵区非点源污染过程模拟研究进展. *地球信息科学学报*, 19(8):1080–1088.] doi:10.3724/SP.J.1047.2017.01080
- [6] Jiang, J.-C., Yu, J., Qin, C.-Z., Liu, J.-Z.*, Li, R.-K., **Zhu, L.-J.**, Zhu, A.-X., **2017**. A knowledge-driven method for intelligent setting of parameters in hydrological modeling. *Geomatics and Information Sciences of Wuhan University (in Chinese with English abstract)*, 42(4):525–530. [江净超, 余洁, 秦承志, 刘军志*, 李润奎, 朱良君, 朱阿兴. **2017**. 知识驱动下的水文模型参数智能化设置方法. *武汉大学学报·信息科学版*, 42(4):525–530.] doi:10.13203/j.whugis.20150044

- [5] Ren, Z.*, **Zhu, L.**, Wang, B., Cheng, S., **2016**. Soil hydraulic conductivity as affected by vegetation restoration age on the Loess Plateau. *Journal of Arid Land*, 8(4):546–555. doi:10.1007/s40333-016-0010-2
- [4] Liu, J.-Z., Zhu, A.-X.*, Qin, C.-Z., Jiang, J.C., **Zhu, L.-J.**, Shen, L., **2015**. Parallel computing of watershed process simulation guided by geographical laws. *Journal of Geo-information Science (in Chinese with English abstract)*, 17(5):506–514. [刘军志, 朱阿兴*, 秦承志, 江净超, **朱良君**, 沈琳. **2015**. 论地理规律对流域过程模拟并行计算的指导作用. 地球信息科学学报, 17(5):506–514.] doi:10.3724/SP.J.1047.2015.00506
- [3] Hu, G.-F., Zhang, G.-H.*, **Zhu, L.-J.**, **2015**. Comparison of three methods to measure depth of overland flow. *Bulletin of Soil and Water Conservation (in Chinese with English abstract)*, 35(3):152–156. [胡国芳, 张光辉*, **朱良君**. **2015**. 3种坡面流水深测量方法比较. 水土保持通报, 35(3):152–156.] doi:10.13961/j.cnki.stbctb.2015.03.034
- [2] Geng, R., Zhang, G.-H.*, Li, Z.-W., Hu, G.-F., Wang, H., **Zhu, L.-J.**, **2014**. Variation of physical properties and soil organic matter based on the method of stratified sampling. *Journal of Soil and Water Conservation (in Chinese with English abstract)*, 28(6):194–199+205. [耿韧, 张光辉*, 李振炜, 胡国芳, 王浩, **朱良君**. **2014**. 基于分层抽样法的小流域土壤物理性质和有机质差异特征. 水土保持学报, 28(6):194–199+205.] doi:10.13870/j.cnki.stbcxb.2014.06.036
- [1] Wang, B., Zhang, G.*, Shi, Y., Zhang, X.C., Ren, Z., **Zhu, L.**, **2013**. Effect of natural restoration time of abandoned farmland on soil detachment by overland flow in the Loess Plateau of China. *Earth Surface Processes and Landforms*, 38(14):1725–1734. doi:10.1002/esp.3459

Book chapters and entries:

- [1] Qin, C.-Z., **Zhu, L.-J.**, **2020**. GDAL/OGR and Geospatial Data IO Libraries. The Geographic Information Science & Technology Body of Knowledge (4th Quarter 2020 Edition), John P. Wilson (Ed.). doi:10.22224/gistbok/2020.4.1

RESEARCH ACTIVITIES

As Principal Investigator (PI) or Co-PI in research projects:

- [1] "Spatial optimization of watershed management practices based on nested geographic objects", National Natural Science Foundation of China for Young Scientists Fund (No. 42101480), 2022–2024, **¥300,000 (Chinese Yuan)**

Participating in research projects:

- [5] "Slope position as spatial unit for optimizing scenarios of Beneficial Watershed Management Practices (BMPs) in a unit-boundary adaptive manner", National Natural Science Foundation of China (No. 41871362), 2019–2022, PI: Cheng-Zhi Qin
- [4] "Scenario analysis of organic waste management in Dianbuhe watershed", National Key Technology Innovation Project for Water Pollution Control and Remediation (No. 2013ZX07103006-005), 2013–2016, PI: A-Xing Zhu

- [3] "Development of parallel algorithm for spatial statistics and geographical process simulation", National High-Tech Research and Development Program of China (No. 2011AA120305), 2011–2013, PI: A-Xing Zhu
- [2] "Hundred Talents Program" of the Chinese Academy of Sciences, 2012–2014, PI: Guang-Hui Zhang
- [1] "Research on experimental techniques of soil erosion", Independent research project of State Key Laboratory of Earth Surface Processes and Resource Ecology (No. 2012-ZY-02), 2012–2013, PI: Guang-Hui Zhang

Conference Oral Presentations:

- [5] A modular and parallelized modeling framework for distributed watershed modeling and scenario analysis. *28th International Conference on Geoinformatics* (Online), Nov. 3-5, 2021. Nanchang, Jiangxi, China.
- [4] New optimization framework of watershed best management practice scenarios in a unit-boundary adaptive manner. *10th iEMSs Conference* (Online), Sep. 14–18, **2020**. Brussels.
- [3] Development of a modular and parallelized watershed modeling framework. *1st Regional Conference on Environmental Modeling and Software (Asian Region)*, May. 18–20, **2019**. Nanjing, China.
- [2] An automatic approach of prototype-based fuzzy slope positions. *AAG Annual Meeting*, Apr. 5–9, **2017**. Boston, USA.
- [1] Automatic approach for deriving fuzzy slope positions. *33rd International Geographical Congress (IGC)*, Aug. 21–25, **2016**. Beijing, China.

PROFESSIONAL SERVICES:

Manuscripts reviewed:

Geoscientific Model Development: 2021(1)
Soil Science Society of America Journal: 2021(1)
Land Use Policy: 2021(1)
Water Resources Management: 2021(1), 2020(1)
Annals of GIS: 2020(1)
Journal of Agricultural Science and Technology: 2019(1)
水文: 2021(1)