

## CURRICULUM VITAE

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### PERSONAL INFORMATION:

Name:

Liang-Jun Zhu (朱良君)

Position:

Assistant Professor

Business Address:

State Key Laboratory of Resources and Environmental Information System,  
Institute of Geographic Sciences and Natural Resources Research, Chinese Academy Sciences  
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Languages:

Chinese, English

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### RESEARCH INTERESTS:

Watershed system modeling and scenario analysis for best management practices, intelligent geocomputation

### EDUCATION:

- |           |  |
|-----------|--|
| 2014-2019 | <b>Ph.D.</b> (GIS), University of Chinese Academy Sciences, Beijing, P.R.C.<br><b>Dissertation:</b> Method of optimizing spatial configuration of beneficial watershed management practices in a unit-boundary adaptive manner<br><b>Supervisors:</b> Professor <a href="#">A-Xing Zhu</a> and Professor <a href="#">Cheng-Zhi Qin</a> |
| 2011-2014 | <b>M.Sc.</b> (Physical Geography), Beijing Normal University, Beijing, P.R.C.<br><b>Thesis:</b> A laser scanner for surface roughness and rill morphology measurement based on linear structured light<br><b>Supervisor:</b> Professor <a href="#">Guang-Hui Zhang</a>   |
| 2007-2011 | <b>B.Sc.</b> (GIS), Northwest A&F University, Yangling, Shannxi, P.R.C.  |

### 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 |

### 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)

### PUBLICATIONS AND RESEARCH PAPERS:

Journal Articles of first author or corresponding author:

- [1] **Liang-Jun Zhu**, Jun-Zhi Liu\*, Cheng-Zhi Qin\*, A-Xing Zhu. **Under review after major revision**. A modular and parallelized watershed modeling framework. *Environmental Modelling & Software*.
- [2] **Liang-Jun Zhu**, Cheng-Zhi Qin\*, A-Xing Zhu, Jun-Zhi Liu, Hui Wu. **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
- [3] Cheng-Zhi Qin, Hui-Ran Gao, **Liang-Jun Zhu\***, A-Xing Zhu, Jun-Zhi Liu, and Hui Wu. **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
- [4] **Liang-Jun Zhu**, A-Xing Zhu, Cheng-Zhi Qin\*, and Jun-Zhi Liu. **2018**. Automatic approach for deriving fuzzy slope positions. *Geomorphology*, 304:173-183. doi:10.1016/j.geomorph.2017.12.024
- [5] A-Xing Zhu, Liang-Jun Zhu, Yaxing Shi, Cheng-Zhi Qin, Junzhi Liu. **In press**. Integrated watershed modeling and scenario analysis: a new paradigm for integrated study of physical geography. *Progress in Geography (in Chinese with English abstract)*. [朱阿兴, **朱良君\***, 史亚星, 秦承志, 刘军志. 待刊. 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.]
- [6] Lin Wang, **Liang-Jun Zhu\***, A-Xing Zhu, Jun-Zhi Liu, and Lin Shen. **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
- [7] **Liang-Jun Zhu**, Guang-Hui Zhang\*, Zhen-Wei Li, and Ren Geng. **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
- [8] **Liang-Jun Zhu** and Guang-Hui Zhang\*. **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
- [9] **Liang-Jun Zhu**, Guang-Hui Zhang\*, Guo-Fang Hu, and Bing Wang. **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.stbxb.2013.01.044
- [10] **Liang-Jun Zhu**, Guang-Hui Zhang\*, and Zong-Ping Ren. **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

- [11] Hui-Ran Gao, Cheng-Zhi Qin\*, **Liang-Jun Zhu**, A-Xing Zhu, Jun-Zhi Liu, and Hui Wu. **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
- [12] Lun-Jiang Wang, Guang-Hui Zhang\*, **Liang-Jun Zhu**, and Hao Wang. **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
- [13] Hui-Ran Gao, Lin Shen, Jun-Zhi Liu\*, A-Xing Zhu, Cheng-Zhi Qin, **Liang-Jun Zhu**. **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
- [14] Jing-Chao Jiang, Jie Yu, Cheng-Zhi Qin, Jun-Zhi Liu\*, Run-Kui Li, and **Liang-Jun Zhu**, and A-Xing Zhu. **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.whugis20150044
- [15] Zong-Ping Ren\*, **Liang-Jun Zhu**, Bing Wang, and Sheng-Dong Cheng. **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
- [16] Jun-Zhi Liu, A-Xing Zhu\*, Cheng-Zhi Qin, Jing-Chao Jiang, **Liang-Jun Zhu**, and Lin Shen. **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*, 17(5):506-514.] doi:10.3724/SP.J.1047.2015.00506
- [17] Guo-Fang Hu, Guang-Hui Zhang\*, and **Liang-Jun Zhu**. **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
- [18] Ren Geng, Guang-Hui Zhang\*, Zhen-Wei Li, Guo-Fang Hu, Hao Wang, and **Liang-Jun Zhu**. **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\*, 李振伟, 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
- [19] Bing Wang, Guang-Hui Zhang\*, Yang-Yang Shi, Xun-Chang Zhang, Zong-Pin Ren, and **Liang-Jun Zhu**. **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

- [1] Cheng-Zhi Qin, **Liang-Jun Zhu**, Jun-Zhi Liu, A-Xing Zhu. **Under review**. HPC application in spatially distributed hydrological modeling. *In: Wenwu Tang and Shaowen Wang eds., High Performance Computing for Geospatial Applications*. Springer.

## RESEARCH ACTIVITIES

### Participating in research projects:

- [1] "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
- [2] "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
- [4] "Hundred Talents Program" of the Chinese Academy of Sciences, 2012-2014, PI: Guang-Hui Zhang
- [5] "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:

- [1] 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.
- [3] Automatic approach for deriving fuzzy slope positions. *33rd International Geographical Congress (IGC)*, Aug. 21-25, **2016**. Beijing, China.