



Curriculum Vitae



Name: Jiabo Lu

Phone: +86 18262629800

Blog: https://blog.csdn.net/weixin_43012724?type=blog

Date of Birth: 1/10/1998

Email: lujiabo@hhu.edu.cn

EDUCATION

- PhD** Hohai University, Hydrology and Water Resources Expected graduation June 2026
Supervisor: Prof. Dr. Chuanhai Wang
- MS** Hohai University, Hydrology and Water Resources June 2022
Supervisor: Dr. Xiaohua Xiang
Successive postgraduate and doctoral programs of study
- BS** Hohai University, Hydrology and Water Resources Engineering June 2020
Graduated Summa Cum Laude

RESEARCH INTERESTS

1. Flood forecasting and uncertainty quantification
2. Reservoir optimization and control
3. Numerical model for flood propagation

PUBLICATIONS

Journal Publications

Lu J B, Xiang X H*, Li, C, et al. Research on Data Structure of General Hydrological Model in GIS (in Chinese) [J]. Water Resources Protection, 2021, 37(5): 89-93.

Journal Papers in Review

Lu J B, Yin Z J, Xiang X H*, et al. Research on one-dimensional hydrodynamic reduced order model (in Chinese), Accepted by Journal of Basic Science and Engineering.



Lu J B, Pan Z J, Tan Z, et al. The integration method of GIS and hydrological model from an object-oriented perspective (in Chinese), Submitted to: Water Resources and Hydropower Engineering.

Xiang X H, Li C, Wu X L, Yang H*, Wang Z W, **Lu J B**. Comparison of CO₂ emission before and after impoundment of Wujiangdu Reservoir, Southwest China, Submitted to: journal of hydrology.

Conference Papers

Lu J B, Xiang X H*, A river network polygon extraction algorithm based on hydrodynamic and Monte Carlo method, 5th International Symposium of Shallow Flows, Oct. 23-25, 2021, pp. 293-297.

Lu J B, Xiang X H*, Research on estimating the discharge through gates of the South-to-North Water Diversion Middle Route Project (in Chinese), 2020 Academic Innovation Forum of "Water Science Frontier and Technology" for postgraduate students in Jiangsu Province, Nov. 7-8, 2020, pp. 39.

RESEARCH EXPERIENCE

Plain River and Lake Hydrology Research Center, Nanjing

2020-Now

Supervisor: Dr. Xiaohua Xiang

- Implemented SCE-UA algorithm in C++ for calibrating Xin'anjiang hydrological model
- Quantified model uncertainty by GLUE and MCMC algorithms
- Backbone river network extraction method based on graph theory and maximum flow algorithm
- Built flood inundation model for flood storage basin using ArcHIGH
- Reduced order of 1D hydrodynamic model by POD and DEIM

Department of Hydrology and Water Resources Engineering, Nanjing 2016 to 2020

- Realized Xin'anjiang model with MATLAB, and calibrated parameters with PEST++
- Solved multi-objective reservoir operation model by DE algorithm
- Established a 1D river hydrodynamic model based on Saint-Venant equations

ONGOING PROJECTS

Development of river network hydrodynamic prediction subsystem

- Developed a 1D Hydrodynamic model for flood routing in MATLAB
- Learned to use urban storm flood model SWMM

Hangzhou informatization dispatching model

- Data cleaning for water level and rainfall data from 2013 to 2021 by Python



- Constructed a hydrodynamic model of the Hangzhou river network

Digital twin watershed of Weihe

- Extracting river network system and setting relationship between river channels
- Simulating runoff processes in reservoir area and outlet
- Multi-objective optimal scheduling of flood control for reservoir groups

Intelligent flood control forecast and operation system of Wangying Reservoir

- Rainfall and runoff forecasting with Xin'anjiang model
- Simulated the river flow downstream of the reservoir
- Constructed reservoir flood control optimal operation model

HONORS AND AWARDS

Outstanding Postgraduate Awarded by Hohai University	2021
First Prize in Water Science Numerical Simulation Innovation Competition Flood progression and gate control model	2020
National Scholarship Awarded by the Ministry of Education	2018

LANGUAGES

Chinese: Native Language

English: College English Test-6 Qualified

COMPUTER SKILLS

Programming: C/C++, Python, MATLAB

Applications: Microsoft Office, Microsoft Visual Studio, ArcGIS, HEC-RAS

Platforms: Windows

OTHER

Interests/Hobbies: Programming, Hiking

Citizenship: Chinese

SUPERVISOR INFORMATION

Prof. Dr. Chuanhai Wang



College of Hydrology and Water Resources
Hohai University
1 Xikang Road, Nanjing, P. R. China 210098
Email: chwang@hhu.edu.cn
Profile: Hydrodynamic model, GIS, Hydrology
[Research Gate](#)

REFERENCES

Dr. Xiaohua Xiang, Associate Professor
College of Hydrology and Water Resources
Hohai University
1 Xikang Road, Nanjing, P. R. China 210098
Email: xxhxiang@hhu.edu.cn

Dr. Xiaoling Wu, Associate Professor
College of Hydrology and Water Resources
Hohai University
1 Xikang Road, Nanjing, P. R. China 210098
Email: freebir7237@hhu.edu.cn