

# Linxuan Li

Wuhan University  
299 Bayi Road, Wuhan  
P. R. China, 430079

Email: [lxli\\_0@whu.edu.cn](mailto:lxli_0@whu.edu.cn)

Mobile: +86-15270020601

Homepage: [lxli0.github.io](https://github.com/lxli0)

## EDUCATION

---

- **Wuhan University, School of Geodesy and Geomatics** Wuhan, China  
*Bachelor of Geophysics; GPA: 4.0/4.0 (via 133 credits)* Sep 2019 - Jun 2023 (expected)  
*Rank first in both the academic and comprehensive assessments.*

## RESEARCH INTERESTS EVERYTHING ASSOCIATED WITH TECTONICS!

---

- **Surface/Subsurface Geodynamic Processes:** Cyclic Loading, Deformation, and Seismicity; Induced Earthquakes
- **Rupture Process and Earthquake Physics:** Coseismic and Postseismic Deformations; Earthquake Triggering; Slow Slip
- **Seismic Cycle:** Earthquake Recurrence (Supercycles); Evolution of Crustal Stress and Strain

## RESEARCH EXPERIENCE

---

- **Investigate seismicity patterns in the Three Gorges Reservoir area** Sep 2020 - May 2022  
*Advisor: Gang Luo (Wuhan University)*
  - Use various statistical methods to characterize the spatial and temporal patterns of regional seismicity.
  - Use physics-based calculations to investigate the relationship between earthquakes and hydrosphere changes (reservoir water level and precipitation).
- **Use  $K$ - $M$  slope to study seismic sequences** Feb 2022 - Present  
*Advisors: Gang Luo (Wuhan University), Mian Liu (University of Missouri)*
  - Verify that the  $K - M$  slope ( $KMS$ ) derived from topological analysis is universally proportional to the  $b$ -value derived from Gutenberg-Richter law.
  - Compare  $KMS$  estimation with traditional  $b$ -value estimation methods to explore the potential application of  $KMS$ .
- **Stress-based forecasting of reservoir-induced earthquakes** Jun 2022 - Present  
*Advisors: Gang Luo (Wuhan University), Mian Liu (University of Missouri)*
  - Build general model in which an earthquake is simulated by instantly decreasing strength to generate synthetic induced seismic catalogs.
- **Link seismic velocity with hydrosphere changes** Jul 2022 - Present  
*Advisors: Xiaodong Song (Peking University), Jiangtao Li (Wuhan University)*
  - Build general model to illustrate whether surface hydrosphere can affect seismic velocity by including stress variations.

## PUBLICATIONS

---

1. **Linxuan Li** and Gang Luo (2022). What causes the spatiotemporal patterns of seismicity in the Three Gorges Reservoir area, central China?. *Earth and Planetary Science Letters*. [doi.org/10.1016/j.epsl.2022.117618](https://doi.org/10.1016/j.epsl.2022.117618).
2. **Linxuan Li**, Gang Luo, and Mian Liu (under review). The  $K$ - $M$  slope: a potential supplement for  $b$ -value.

## TECHNICAL SKILLS

---

- **Languages:** Chinese, English (IELTS: 7.5)
- **Programming Languages:** MATLAB, C/C++, Python, FORTRAN
- **Technical Softwares:** ABAQUS, GMT, ArcGIS, SPSS
- **Document/Presentation:** Office platform, Adobe, Overleaf

## HONORS AND AWARDS

---

- **Yugang-Songxiao Scholarship (for the top 1 of 323 students)** 2020 - 2021  
*Sponsored by Wuhan University*
- **National Scholarship (for the top 6 of 336 students)** 2019 - 2020  
*Sponsored by Ministry of Education of the People's Republic of China*
- **The First Prize Scholarship** 2019 - 2020 and 2020 - 2021  
*Sponsored by Wuhan University*
- **Award for Active Participation in Social Activities** 2020 - 2021  
*Sponsored by Wuhan University*
- **Finalist in Interdisciplinary Contest in Modeling** 2021  
*Sponsored by COMAP (Consortium for Mathematics and Its Applications)*
- **The First prize in College Mathematics Contest (Hubei Division)** 2020  
*Sponsored by Chinese Mathematical Society*

## ADDITIONAL ACTIVITIES

---

- **Oxford Online Course (Oxford University)** Jan 2021 - Feb 2021  
*Oxford Academic English Skills for Research; Tutor: Garry Maguire; Grade: A (3 credits)*
- **Int'I Undergraduate Research Program (KAIST)** Dec 2021 - Feb 2022  
*Introduction to Quantum Information; Tutor: Bae Joonwoo*
- **Admissions Ambassador (Wuhan University)** Oct 2020 - Present
- **In charge of the Study Department (in Student Union)** Sep 2020 - Jun 2021
- **Responsible for literature and art activities (in class)** Sep 2019 - Present