

Linxuan Li

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EDUCATION

- **Wuhan University, School of Geodesy and Geomatics** Wuhan, China
Bachelor of Geophysics; GPA: 4.0/4.0 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 physical model to explain the observed seasonal seismic velocity from ambient noise interferometry.

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.
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

- **Leijun Scholarship (Top 0.3%)** 2021 - 2022
Sponsored by Wuhan University
- **Yugang-Songxiao Scholarship (Top 0.3%)** 2020 - 2021
Sponsored by Wuhan University
- **National Scholarship (Top 1.8%)** 2019 - 2020
Sponsored by Ministry of Education of the People's Republic of China
- **The First Prize Scholarship (×3)** 2019 - 2022
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