Chen XIONG

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EDUCATION

Shandong University (SDU), China Sep. 2022 – Jun. 2025 (Expected)

Master's degree in Geotechnical Engineering (Applied Geophysics)

- Core Modules: Advanced Engineering Geology, Electromagnetic Survey, Fourier Transform
- GPA: 3.15/4.0 (81.02/100)

Northwest A&F University (NWAFU), China Sep. 2018 – Jun. 2022

Bachelor's degree in Civil Engineering

- Core Modules: Soil Mechanics, Engineering Geology and Hydrogeology, Programming in Python
- GPA: 3.44/4.0 (84.94/100)

PUBLICATIONS

Y. Yang, **C. Xiong**, H. Zhang, et al., 2024. Optimal acquisition time estimation method for CSEM with high-order pseudo-random signal. J. Appl. Geophys. 230, 105517. https://doi.org/10.1016/j.jappgeo.2024.105517.

- Based on the characteristics of high-order pseudo-random signal, a logistic function with the time decay factor is proposed to better describe the dynamic evolution of the measured data quality;
- According to the properties of the improved function, the average value of the test points reaching the saturation period is determined as the optimal acquisition time to guide the subsequent fieldwork.

RESEARCH EXPERIENCES

Near-field exploration of electric dipole sources Apr. 2024 – Present

- Utilizing the wide frequency bandwidth and dense main frequencies of high-order pseudo-random signal, the frequency response is transformed into the impulse response through cosine transformation.

An instrument for an electromagnetic induction method Nov. 2023 – Mar. 2024

- By adding bucking coils to the transmitting and receiving coils to cancel the primary field, a pure secondary response from the underground can be obtained.

HONORS & PRIZES

MCM/ICM: Meritorious Winner (Top 8%) Apr. 2021

SDU: Outstanding Graduate Student (Top 25%) Sep. 2024

NWAFU: Outstanding Undergraduate Student (Top 10%) Dec. 2020

SKILLS

IT skills: Python, MATLAB, COMSOL, Particle Flow Code;

Language: English (IELTS 7.0: L 7.0, R 7.5, W 6.0, S 6.5), Mandarin Chinese (native);

Hobbies: Working out, Marathon running, Music.