Yuanyuan Yang

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EDUCATIONAL BACKGROUND

Tongji University Shanghai, China 09/2015 - 07/2019

School of Ocean & Earth Science, Department of Geophysics

- Major in Geophysics
- Overall GPA: **91.42**/100 Rank: **1**/15
- Major GPA: **94.12**/100 Rank: **1**/15

SELECTED COURSE PROJECTS

Finite-difference Method of Seismic Wave Numerical Modeling

Theory of Seismic Wave Propagation (5.0/5.0), Supervised by Prof. Liangguo Dong

- 2D acoustic wave equation numerical modeling by finite-difference method using C++ programming in the Linux operating system.
- Perfectly Matched Layers (PML) applied as absorbing boundary conditions.

Pseudo-spectral Method of Seismic Wave Numerical Modeling

Application of Computer Technology in Earth Science (5.0/5.0), Supervised by Prof. Jiubing Cheng

- 2D acoustic wave equation numerical modeling by pseudo-spectral method using C++ programming.
- Makefile compilation method applied to compile program in the Linux operating system.

Reverse Time Migration Program

Applied Geophysics I (5.0/5.0), Supervised by Prof. Kai Yang

- Acoustic wave equation based post-stack and pre-stack RTM programming with C++ in the Linux system.
- Laplace operator filtering algorithm applied to suppress the imaging noise.

Straight Ray Path Tomography Inversion

Applied Geophysics I (5.0/5.0), Supervised by Prof. Kai Yang

- The straight ray paths simulated in a complex model, and Fréchet derivative matrix built by C++ programming.
- Damped least square method applied to solve the matrix equation.
- Velocity tomography inversion by MATLAB programming.

RESEARCH EXPERIENCE

OBS Data Tomography Inversion and Interpretation

Core group member, Supervised by Prof. Yuzhu Liu

- Pick first arrivals of pressure component of OBS data to relocate OBS.
- Establish an initial velocity model and apply frequency-dependent travel time tomography inversion method to update the velocity model.

PROFESSIONAL SKILLS

- Programming Languages: C/C++, MATLAB, Visual Basic, SQL
- Scientific Softwares: SU, ProMAX, GMT, SAC, Surfer, Grapher

AWARDS AND HONORS

- China National Scholarship (Top 2%, continued 2 years) 11/2017 - 11/2018
- Liu Guangding Geophysical Scholarship 01/2017
- The Second Prize of Tongji Scholarship of Excellence 12/2016
- Pacemaker to Excellent Student, Tongji University (Top 0.15%) 11/2018
- Excellent Student, Tongji University (Top 5%, continued 2 years) 01/2017 - 03/2018
- Third Prize in 2017 (10th) China College Students Computer Design Contest 08/2017
- Second Prize in 2017 (9th) Shanghai College Students Computer Application Ability Contest 04/2017