Kejing Huang

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EDUCATION

University of Science and Technology of China (USTC) Anhui, China

M.Sc. of Geophysics *Expected at Jun. 2020*

Advisor: Professor Yan Hu

GPA: 4.03/4.30

Ocean University of China (OUC) Shandong, China

B.E. of Geo-exploration Technology and Engineering *Jun. 2017*

Advisor: Professor Zhihui Zou

GPA: 3.61/4.00 (Rank 2/50)

RESEARCH EXPERIENCE

University of Science and technology of China Anhui, China

The 1964 Mw9.2 Alaska earthquake *2018~2019*

- *Postseismic deformation*
  - Derived present GPS velocity field in the study region from time-series of 72 GPS sites
  - Constructed a three-dimensional viscoelastic finite element model to study deformation processes of the 1964 event
  - Optimized the rheological properties of Alaska subduction zone
  - Studied stress perturbations due to the 1964 event on the active faults of recent large earthquakes, such as the 2002 Mw7.8 Denali earthquake and 2018 Mw7.1 Anchorage earthquake
  - Presented results at 2018 American Geophysical Union Annual Fall Meeting
- *Coseismic deformation*
  - Constructed synthetic tests of coseismic slip inversion of the 1964 event based on realistic fault geometry
  - Evaluated the stability and accuracy of inversion result by bootstrap method and checkerboard test, respectively

Earthquake cycle of the 2015 Nepal Mw7.8 earthquake *Jan. 2018*

- Processed time-series of 28 GPS sites in the study region
- Inverted derived coseismic displacements for the rupture slip distribution
- Evaluated the locking ratio distribution of the fault based on interseismic observations

Michigan State University *Michigan, United States*

Present crustal deformation in Alaska *Dec. 2018*

- Collaborated with Professor Jeffrey Freymueller on distinguish differences from GPS data
- Studied contribution of block motion, Glacial Isostatic Adjustment model and subduction zone processes
- Processed data presented at 2018 American Geophysical Union Fall Meeting

Ocean University of China Shandong, China

Interface-inversion-based seismic deformable layer tomography *2016~2017*

- Wrote MATLAB code for two-dimensional ray tracing
- Improved calculation accuracy of forward modelling with similar operation time
- Carried out six synthetic tests and evaluate the stability and accuracy of inversion results.

Field work of geophysics at Yantai, Shandong *Sep. 2016*

- Led a team of 14 members.
- Conducted geomagnetic and electromagnetic measurement
- Derived active-source imaging of regional shallow stratigraphic structure

AWARDS

First Class Academic Scholarship, USTC (3 times) *2017~2019*
Outstanding Graduate in OUC (Top 5% of 200 students) *Jul.2017*
First Prize in Geophysical Knowledge Competition for National College Students *Dec.2016*
First Class Scholarship Award for Excellence in academic work, OUC (3 times) *2014~2017*

CONFRENCE PRESENTATIONS

International

- **Huang, K**., Hu, Y. and Freymueller, J. T. (2019), Decadal viscoelastic postseismic deformation of the 1964 Mw9.2 Alaska earthquake and its stress perturbations over crustal active faults, Abstract submitted to the 2019 American Geophysical Union Fall Meeting, San Francisco, CA, 9–13 Dec. (accepted)
- **Huang, K**., Hu, Y. and Freymueller, J. T. (2018), Three-dimensional finite element model of the viscoelastic postseismic deformation of the 1964 Mw9.2 Alaska earthquake, Abstract T52C-08 presented at 2018 American Geophysical Union Fall Meeting, Washington, D.C., 10–14 Dec.

National

- **Huang, K**., Hu, Y. and Freymueller, J. T. (2019), Crustal stress perturbations expected from three-dimensional finite element model on the viscoelastic postseismic deformation of the 1964 Mw9.2 Alaska earthquake, Abstract submitted to the 2019 Annual meeting of China Geoscience Union, Beijing, China, 26–30 Oct.
- **Huang, K**., Hu, Y. and Freymueller, J. T. (2018), Effects of rheological heterogeneities in the upper mantle on the viscoelastic postseismic deformation of the 1964 Mw9.2 Alaska earthquake, Abstract presented at 2019 Annual meeting of China Geoscience Union, Beijing, China, 21–23 Oct.

SKILLS

Computer skills: Finite Element Modeling in Pylith, MATLAB, GMT, Linux
Language skills: English (TOEFL score: 105), Chinese (native)