Suli Yao 姚素丽

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Education

Ph.D. (Seismology), The Chinese University of Hong Kong 2017.8 – 2022.6
B.S. (Geophysics), The University of Science and Technology of China 2013.9 – 2017.6

Employment

Postdoc, Laboratoire de Géologie de l'ENS 2025.10 – present
Postdoc, The Chinese University of Hong Kong 2022.7 – 2025.10
Visiting Scholar, Southern University of Science and Technology 2024.5 – 2025.8

Research Interests

Numerical modelling of earthquake rupture; Near-field ground motions; Continental strike-slip earthquakes; Megathrust earthquakes

Honors & Awards

- 2023, Excellent Dissertation Award, Chinese Geophysical Society
- 2021, Outstanding Students Award, The Chinese University of Hong Kong
- 2021, Best Presentation Award in the 2020-2021 CUHK Science Faculty Postgraduate Research Day
- 2020, Best Student Presentation Award in the Eastern Section - Seismological Society of America Annual Conference (ES-SSA)
- 2019, Travel Grant Awardee, 2019 Modeling Collaboratory for Subduction RCN's Megathrust Modeling Workshop
- 2019, 2018 Best Student Presentation in the Annual Meeting of Chinese Geoscience Union (CGU)
- 2017, EASC Admission Scholarship, The Chinese University of Hong Kong

Community Service

- Reviewer for *NC, JGR, TSR, GJI, BSSA, SRL, Tectonophysics, Earthquake Science.*
- Organizing committee member for the 2020 *1st Asia-Pacific Geophysics Student Conference (APGSC*)

Journal Publications

1. **Yao, S**., Ye, L.*, Yang, H., & Xia, T. (2025). Diverse rupture behaviors of M5 earthquakes reveal heterogeneous fluid effects in Noto Peninsula, central Japan. *Geophysical Research Letters*, *52*(20), e2025GL117377.

2. **Yao, S.**, Yang, Z., Yang, H.* (2025), Determination of Rupture Directivity of the 2024 Feidong M4.7 Earthquake Using Single Near-Source Station, Earthquake Science, *38(0): 1-9, 10.1016/j.eqs.2025.02.001*

3. **Yao, S.,** Yang, H.* (2025), Rupture phases reveal geometry-related rupture propagation in a natural earthquake, Science Advances, *11*(4), eadq0154.
4. Chan, Y. P. B., **Yao, S.**, & Yang, H.* (2023). Impact of hypocentre location on rupture extent and ground motion: A case study of southern Cascadia. *Journal of Geophysical Research: Solid Earth*, 128, e2023JB026371. https://doi.org/10.1029/2023JB026371
5. **Yao, S.** and H. Yang* (2023), Towards Ground Motion Prediction for Potential Large Earthquakes from Interseismic Locking Models, *Earth Planet. Sci. Lett.*, No.117594, https://doi.org/10.1016/j.epsl.2022.117905.
6. **Yao, S.** and H. Yang* (2022), Hypocentral dependent shallow slip distribution and rupture extents along a strike-slip fault, *Earth & Planetary Science letter, https://doi.org/10.1016/j.epsl.2021.117296.*
7. Yang, H.*, **Yao, S.**, and X. Chen (2022), Rupture propagation on heterogeneous fault: challenges for predicting earthquake magnitude, Chin. Sci. Bull., in Chinese, doi: 10.1360/TB-2021-1086
8. Yang, H.* and **Yao, S.** (2021), Shallow destructive earthquakes, Earthquake Science, V.34, NO.1, doi:10.29382/eqs-2020-0072.
9. **Yao, S.,** and H. Yang* (2020), Rupture Dynamics of the 2012 Nicoya Mw 7.6 Earthquake: Evidence for Low Strength on the Megathrust, *Geophys. Res. Lett.*, 47, e2020GL087508, https://doi.org/10.1029/2020GL087508
10. Yang, H.*, **Yao, S.**, He, B., Newman, A.V. (2019). Earthquake rupture dependences on hypocentral location along the Nicoya Peninsula subduction megathrust, *Earth & Planetary Science letter*, 520, 10-17, http://dx.doi.org/10.1016/j.epsl.2019.05.030
11. Yang, H.*, **Yao, S.,** B. He, A. Newman, and H. Weng (2019), Deriving rupture scenarios from interseismic locking distributions along the subduction megathrust, *J. Geophys. Res.*, doi:10.1029/2019JB017541, 124, https://doi.org/10.1029/2019JB017541

Selected Conference Publications

1. **Yao, S.,** & Yang, H. (2024). Near-fault rupture phases reveal rupture propagation in a natural earthquake with complex fault geometry AGU Fall Meeting, S14C-07 ***(invited).***
2. **Yao, S.,** Xu, J., Yang, H., Chen, X. (2024). Surface rupture behaviors controlled by earthquake intrinsic dynamics, AGU Fall Meeting, T33B-3213.
3. **Yao, S.,** Ye, L., Yang, H., Gong, W., Xia, T. (2024). Diverse source processes of M5 earthquakes under a fluid-rich condition in Noto Peninsula, Central Japan, AGU Fall Meeting, T21D-3374.
4. **Yao, S.,** & Yang, H. (2023). Direct Rupture Speed Estimation from" Rupture Phase" of the 2023 Turkey Mw 7.8 Earthquake (No. EGU23-17632). Copernicus Meetings.
5. **Yao, S.,** Yang, H., & Tang, Z. (2023). Investigating relationships between surface rupture and multiple source parameters of earthquakes (No. EGU23-7142). Copernicus Meetings.
6. **Yao, S.** and Yang, H. (2021). Estimate of earthquake potential from dynamic rupture simulation along the Anninghe fault, Sichuan, China, the 2021 SSA Annual Meeting.
7. **Yao, S.** and Yang, H. (2020). Towards quantitative seismic hazard assessment from interseismic locking models, 2020 Eastern Section - Seismological Society of America Annual Conference (ES-SSA).
8. **Yao S.** and Yang, H. (2019). Constraining coseismic frictional properties during the 2012 Nicoya Mw 7.6 earthquake from near-field observations and 3-D numerical simulations, Workshop on Numerical Modeling of Earthquake Motions: Waves and Ruptures (NMEM), in Bratislava, Slovakia.
9. **Yao, S.** and Yang, H. (2018). Determination of coseismic frictional properties on the megathrust during the 2012 M7.6 Nicoya earthquake, AGU Fall Meeting, T41H-0407.