

## CURRICULUM VITAE

**Dongdong Yao (姚冬冬)**

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Postdoctoral Research Fellow

Earth and Environmental Sciences

University of Michigan, Ann Arbor

### Educational Background

<u>Degree</u>	<u>Field</u>	<u>Year</u>	<u>University</u>
B.S.	Geophysics	2012	Univ. of Sci. & Tech. of China
Ph.D.	Geological Sciences	2018	Georgia Institute of Technology

### Employment

2018-2021 Postdoctoral Fellow, University of Michigan, Ann Arbor

2012-2018 Graduate Teaching/Research Assistant, Georgia Tech

### Honors and Awards

Best Student Poster Presentation, East Section SSA meeting, 2016

The Laurel Scholarship for Outstanding Undergraduate, USTC, 2011

The Outstanding Student Leader, USTC, 2011, 2012

Zhao Jiuzhang Sci-Tech Elite Class, USTC, 2008-2012

### Current Research Interests

Earthquake Detection/Relocation, Earthquake Triggering, Repeating Earthquakes, Foreshock/Aftershock Sequence, Seismic/Aseismic Slip, Lake/Reservoir Seismicity, Urban Seismology

- *Interaction between water level changes and seismic radiation surrounding the Great Lakes and water reservoirs*
- *Source parameters and combined observations for induced seismicity*
- *Machine Learning in seismic signal detection/classification*

### Teaching Experience

Teaching Assistant of *Habitable Planet*, Spring 2013, Fall 2015

Teaching Assistant of *Introduction to Environmental Science*, Summer 2013, Fall 2013 and Spring 2015

Guest Lecturer of *Earthquake Physics*, Fall 2015  
GT Athlete Tutor of *Habitable Planet*, Fall 2015  
Guest Lecturer of *Observational Seismology*, Spring 2016  
Guest Lecturer of *Introduction to Geophysics*, Fall 2017

### Field Experience

2015 March: Seismic reflection/refraction survey at Lilburn, Georgia  
2016 March: Field deployment in Woodward and Fairview, Oklahoma  
2017 Feb: A month's visit in GNS science, Lower Hutt, New Zealand  
2019 Apr/July/Nov: LEEP experiment field service, Michigan & Ohio  
2020 Nov: LEEP experiment field service, Michigan & Ohio

### Professional Affiliations

American Geophysical Union (AGU), 2013-present  
Society of Exploration Geophysicists (SEG), 2011-present  
Seismological Society of America (SSA), 2014-present  
Seismological Society of America, East Section, 2016-present

### Professional Services

USTC Earth and Space Sciences (ESS) 08007 Student Leader: 2010-2012  
USTC SEG Student Chapter Officer, 2011-2012  
Georgia Tech SEG Student Chapter, Secretary/Treasurer, 2014-2016  
Reviewer for SRL (5), GRL (2), Scientific Report (2), BSSA (2), G3, etc.

### Technical Skills

Fortran, Shell scripts, Matlab, Seismic Analysis Code (SAC), Generic Mapping Tools (GMT), Antelope Software, HypoDD/TomoDD, Python

Peer-Reviewed Publications

1. **Yao\***, D., Z. Peng and X. Meng (2015), Remotely triggered earthquakes in South-Central Tibet following the 2004 Mw9.1 Sumatra and 2005 Mw8.6 Nias earthquakes, *Geophys. J. Int.*, 201(2), 543-551, doi: 10.1093/gji/ggv037.
2. Li, L., **D. Yao**, X. Meng, Z. Peng and B. Wang (2016), Increasing Normal-Faulting Earthquakes in Southern Tibet following the 2015 Mw 7.8 Gorkha, Nepal earthquake, *Tectonophysics*, ISSN 0040-1951, doi:10.1016/j.tecto.2016.08.008.
3. Bansal, A. R., **D. Yao**, Z. Peng, and D. Sianipar (2016), Isolated regions of remote triggering in South/Southeast Asia following the 2012 Mw8.6 Indian Ocean earthquake, *Geophys. Res. Lett.*, 43, 10,654–10,662, doi:10.1002/2016GL069955.
4. **Yao\***, D., J. I. Walter, X. Meng, T. E. Hobbs, Z. Peng, A. V. Newman, S. Y. Schwartz, and M. Protti (2017), Detailed spatio-temporal evolution of microseismicity and repeating earthquakes following the 2012 Mw7.6 Nicoya earthquake, *J. Geophys. Res., Solid Earth*, 122, 524–542, doi:10.1002/2016JB013632.
5. Wu, J., **D. Yao**, X. Meng, Z. Peng, J. Su, and F. Long (2017), Spatial-temporal evolutions of early aftershocks following the 2013 Mw6.6 Lushan earthquake in Sichuan, China, *J. Geophys. Res., Solid Earth*, 122, 2873–2889, doi:10.1002/2016JB013706.
6. Hobbs, T. E., C. Kyriakopoulos, A. V. Newman, M. Protti, and **D. Yao** (2017), Large and primarily updip afterlip following the 2012 Mw 7.6 Nicoya, Costa Rica earthquake, *J. Geophys. Res., Solid Earth*, doi: 10.1002/2017JB014035.
7. Li, C., Z. Peng, **D. Yao**, H. Guo and Z. Zhan (2017), Abundant aftershock sequence of the 2015 Mw7.5 Hindu Kush Intermediate-depth earthquake, *Geophys. J. Int.*, doi: <https://doi.org/10.1093/gji/ggy016>.
8. Peng, Z., B. Fry, K. Chao, **D. Yao**, X. Meng and A. Jolly (2018), Remote Triggering of microearthquakes and tremor in New Zealand following the 2016 M7.8 Kaikoura Earthquake, *Bull. Seismol. Soc. Am.*, doi:10.1785/0120170327.
9. Zhu, L., Z. Peng, J. McClellan, C. Li, **D. Yao**, Z. Li, and L. Fang (2019), Deep learning for seismic phase detection and picking in the aftershock zone of 2008 Mw7.9 Wenchuan Earthquake, *Phys. Earth Planet. Int.*, <https://doi.org/10.1016/j.pepi.2019.05.004>.
10. Daniels, C., Z. Peng, Q. Wu, S. Ni, X. Meng, **D. Yao**, L. Wagner and K. Fischer (2020), The 2014 Mw4.1 South Carolina earthquake sequence:

- Aftershock productivity, hypocentral depths and stress drops, *Seismol. Res. Lett.*, 91(1):452-464, <https://doi.org/10.1785/0220190034>.
11. **Yao\***, D., Y. Huang, Z. Peng and R. R. Castro (2020), Detailed Investigation of the Foreshock Sequence of the 2010 Mw 7.2 El Mayor-Cucapah Earthquake, *J. Geophys. Res., Solid Earth*, doi: 10.1029/2019JB019076.
  12. Neo, J. C., Y. Huang, **D. Yao** and S. Wei (2021), Is the Aftershock Area a Good Proxy for the Mainshock Rupture Area? *Bull. Seismol. Soc. Am.*, <https://doi.org/10.1785/0120190200>.
  13. **Yao\***, D., Z. Peng, B. Fry, Y. Kaneko, and X. Meng (2021), Dynamic triggering of earthquakes in the North Island of New Zealand following the 2016 Mw7.8 Kaikoura Earthquake, *Earth and Planetary Science Letter*, <https://doi.org/10.1016/j.epsl.2020.116723>.
  14. **Yao\***, D., Y. Huang, and J. Fox (2021). New Insights into the Lake Erie Fault system from the 2019 M<sub>L</sub>4.0 Ohio Earthquake Sequence, *Seismol. Res. Lett.*, in press.
  15. **Yao\***, D., Y. Huang, L. Xue, Y. Fu, J. Fox, and A. Gronewold (2021). Long-term seismicity evolution around the Southern Great Lakes and its interaction with increasing water levels, in prep (GRL targeted).
  16. Hobbs, T.E., **Yao, D.**, A. V. Newman, Z. Peng, and M. Protti (2021), Investigating apparent anticorrelation of repeating aftershocks and afterslip in Nicoya, Costa Rica, targeting JGR-Solid earth, in prep.

### Selected Abstract

1. **Yao, D.**, Y. Huang, L. Xue, Y. Fu, J. Fox and A. Gronewold, Identification of earthquakes and anthropogenic events around the southern Great Lakes, **Poster**, AGU Annual Meeting (virtual), 12/2020.
2. **Yao, D.**, Y. Huang, Z. Peng and R. R. Castro, A systematic analysis of the 2010 El Mayor-Cucapah foreshock sequence, **Talk**, SSA Annual Meeting, Seattle, Apr. 2019.
3. **Yao, D.**, Z. Peng, C. Daniels and X. Meng, Systematic search for repeating earthquakes along the Central San Jacinto Fault, **Poster**, SCEC Annual Meeting, Palm Springs, California, Sep. 2017.
4. **Yao, D.**, Z. Peng, B. Fry, L. M. Wallace and X. Meng, Remote Triggering of Microseismicity in New Zealand following the Mw7.8 Kaikoura EQ, **Talk**, SEG microseismic workshop, Hefei, China, Jun. 2017.
5. **Yao, D.**, X. Ruan, Z. Peng, F. Long, J. Su, X. Liu and C. Zhang, Long-

- term seismic behavior around the epicenter of the 2008 Mw7.9 Wenchuan earthquake, **Poster**, SSA Annual Meeting, Denver, Colorado, Apr. 2017.
6. **Yao, D.**, Z. Peng, B. Fry, L. Wallace, J. Wu, J. Su and F. Long, Using repeating earthquakes as probes for diverse fault slip behaviors, **Poster**, 10<sup>th</sup> international workshop on Statistical Seismology, Wellington, New Zealand, Feb. 2017.
  7. **Yao, D.**, J. I. Walter, X. Meng, Z. Peng, A. V. Newman, S. Y. Schwartz and M. Protti, Detailed Spatio-Temporal Evolution of Microseismicity and Repeating Earthquakes around the 2012 Mw 7.6 Nicoya Earthquake, **Talk**, SSA Annual Meeting, Reno, Nevada, Apr. 2016.
  8. **Yao, D.**, Z. Peng, X. Meng, X. Chen, R. Castro and S. Deng, Comprehensive Detection and Relocation of the 2010 Mw7.2 El Mayor-Cucapah Foreshock Sequence, **Poster**, SCEC Annual Meeting, Palm Springs, California, Sep. 2016.
  9. **Yao, D.**, J. Wu, Z. Peng, J. Su, F. Long and B. Du, Repeating Aftershocks Following the 2013 Mw6.6 Lushan Earthquake, **Poster**, East Section SSA Annual Meeting, Reston, Virginia, Oct. 2016.
  10. **Yao, D.**, J. I. Walter, X. Meng, Z. Peng, A.V. Newman, S. Y. Schwartz and M. Protti, Postseismic slip inferred from repeating earthquakes following the 2012 Mw 7.6 Nicoya earthquake in Costa Rica, **Poster** G43B-0509, AGU Fall Meeting, 15-19 Dec. 2014.