

XIE HU (she/her/hers)
CURRICULUM VITAE

Assistant Professor
College of Urban & Environmental Sciences
Peking University, Beijing, China

Google Scholar  (citations 2158; h-index 24; i10-index 38)
Natural Hazards Remote Sensing Lab
xiehu.sar@gmail.com; hu.xie@pku.edu.cn

EDUCATION

Ph.D.	Geophysics	Southern Methodist University, Dallas, TX, USA	2014-2018
M.S.	Remote Sensing	Wuhan University, Wuhan, China	2011-2013
B.S.	GIS	China University of Geosciences, Wuhan, China	2007-2011

WORK EXPERIENCE

Assistant Professor (tenure track), Peking University	2021.7 to present
Assistant Professor (tenure track), University of Houston	2020.9-2021.6
Postdoctoral Researcher, University of California, Berkeley	2018.9-2020.8

HONORS AND AWARDS

International/U.S.

Pure and Applied Geophysics Editorial Excellence	2026
United Nations Office for Disaster Risk Reduction (UNDRR) Women's International Network for Disaster Risk Reduction (WIN DRR) Rising Star Award Finalist	2025
Cooperative Institute for Research in Environmental Sciences (CIRES) (affiliated with NOAA and University of Colorado, Boulder) Visiting Fellowship (Spring 2025)	2024
<u>AGU Natural Hazards Early Career</u>	2022
<u>NASA New (Early Career) Investigator Program in Earth Science</u>	2021
NASA Earth and Space Science Fellowship	2015

China

GIS Rising Star (selected from universities in China)	2025
Beijing Association of Science and Technology Early Career Leadership Program	2024
Beijing Emergency Response and Hazard Reduction Early Career Leadership Program	2023
China's National Natural Science Foundation Early Career	2023

Peking University

First Prize in the Young Faculty Teaching Competition	2026
Outstanding Course Programming Award	2026
The Most Popular Teacher Award	2026
The Best Class Mentor Award	2025

PEER-REVIEWED PUBLICATIONS (61)

†Students in my lab *Corresponding author #Equal contribution

Papers with student/postdoctoral advisees as first authors, mostly me as corresponding author (16):

1. Wang, L., Ao, Z., Tao, S.*, **Hu, X.***, Hu, X.M., Ran Y.†, Wang, G., Zhao, K., Bai, H., Xiao, J., Xue, B., Zhao, X., Zhang, F., Jiang, K., Lin, Y., Huang, Y., Gao, Y., Jiang, T., Peng, Z., Zhu, J., Zhao, S., Wang, S., Zhu, B., Wang, Z., Liu, H., Tang, Z., Xing, H., Liu, Y., Fang, J., 2026. Spatiotemporal dynamics of global urban subsidence revealed by satellite InSAR. *Nature Cities* (Accepted)
2. Lin, Y.†, **Hu, X.***, Wang, X., Zhang, Y., 2026. Mapping maximum floodwater footprints from sustained flood traces. *Water Research*, 126783. <https://doi.org/10.1016/j.watres.2026.126783>
3. Lin, F.†, **Hu, X.***, Yu, X., Xu, Y., An, N., 2026. Ground-shaking-informed regime partitioning for characterizing earthquake-induced secondary hazards. *Geoenvironmental Disasters*, 13, 57. <https://doi.org/10.1186/s40677-026-00405-4>
4. Zhou, Y.†, **Hu, X.***, Lu, Z., Ma, Z., Lin, Y., Shi, X., 2026. Decoupling hydroclimatic controls on displacement of retrogressive thaw slumps in Qinghai-Tibet Plateau. *Geophysical Research Letters*, 53, e2025GL119081. <https://doi.org/10.1029/2025GL119081>
5. Song, Y.†, **Hu, X.***, Xu, Y., Chen, G., Zhang, J., Li, Y., 2025. Co-seismic landslides and a massive lateral spread of the 2023 Jishishan earthquake in China characterized by intelligent remote sensing analysis. *Journal of Geophysical Research: Earth Surface*, 130, e2025JF008702. <https://doi.org/10.1029/2025JF008702>
6. Lin, Y.†, **Hu, X.***, Wang, F., Tang, Q., Zhao, Y., Li, Y., Li, T., Liu, C., Wang, X., Li, D., 2025. Quantifying the lifespan of 3D flood structures: unlocking the potential of flood detention areas for enhanced flood control in China. *Water Resources Research*, 61, e2025WR039992. <https://doi.org/10.1029/2025WR039992>
7. An, N.*, Dai, Z., **Hu, X.***, Wang, B., Huo, Z., Xiao, Y., Zhan, W., Yang, Y., 2025. Comparing landslide patterns and failure mechanisms in restored and native forest ecosystems: Insights from geomorphology, lithology and vegetation. *Catena*, 260, 109452. <https://doi.org/10.1016/j.catena.2025.109452>
8. Song, Y.†, **Hu, X.***, Shi, X., Cui, Y., Zhou, C., Xu, Y., 2025. Hydrological proxy derived from InSAR coherence in landslide characterization. *Remote Sensing of Environment*, 322, 114712. <https://doi.org/10.1016/j.rse.2025.114712>
9. Lin, Y.†, **Hu, X.***, Lu, H.†, Niu, F., Liu, G., Huang, L., Zhu, H., Zhang, S., Liu, J., Liu, Y., 2025. Multi-annual inventorying of retrogressive thaw slumps using domain adaptation. *Journal of Geophysical Research: Machine Learning and Computation*, 1, e2024JH000370. <https://doi.org/10.1029/2024JH000370>
10. Lin, F.†, **Hu, X.***, Lin, Y.†, Li, Y., Liu, Y., Li, D., 2024. Dual-branch multi-modal convergence for crater detection using Chang'e image. *International Journal of Applied Earth Observation and Geoinformation*, 134, 104215. <https://doi.org/10.1016/j.jag.2024.104215>
11. Yu, X.†, **Hu, X.***, Song, Y.†, Xu, S., Li, X., Song, X., Fan, X., Wang, F., 2024. Intelligent assessment of building damage of 2023 Turkey-Syria Earthquake by multiple remote sensing approaches. *npj Natural Hazards*, 1. <https://doi.org/10.1038/s44304-024-00003-0> (**Annual cover paper, sole cover paper of the year**)
12. Shi, X., **Hu, X.***, 2023. Characterization of landslide displacements in an active fault zone in Northwest China. *Earth Surface Processes and Landforms*, 48(10), 1926–1939. <https://doi.org/10.1002/esp.5594>
13. Yu, X.†*, Wang, G., **Hu, X.**, Liu, Y., Bao, Y., 2023. Land subsidence in Tianjin, China: before and after the South-to-North Water Diversion. *Remote Sensing*, 15(6), 1647. <https://doi.org/10.3390/rs15061647>

14. Yu, X.[†], **Hu, X.***, Wang, G., Wang, K., Chen, X., 2022. Machine-learning estimation of snow depth in 2021 Texas statewide winter storm using SAR imagery. *Geophysical Research Letters*, 49, e2022GL099119. <https://doi.org/10.1029/2022GL099119>
15. Yu, H.[†], **Hu, X.**, 2022. Knowledge-aided InSAR phase unwrapping approach. *IEEE Transactions on Geoscience and Remote Sensing*, 60, 1-8. <https://doi.org/10.1109/TGRS.2021.3081039>
16. Shi, X., **Hu, X.***, Sitar, N., Kayen, R., Qi, S., Jiang, H., Wang, X., 2021. Hydrological control shift from river level to rainfall in the reactivated Guobu slope besides the Laxiwa hydropower station in China. *Remote Sensing of Environment*, 265, 112664. <https://doi.org/10.1016/j.rse.2021.112664>

First-author publications (14):

17. **Hu, X.***, Lu, Z., 2026. Counting Vertical Land Motion Once in Relative Sea Level for Coastal Hazard Assessment. *The Innovation Geoscience* (Publication type: Perspective) (Accepted)
18. **Hu, X.***, Xue, L., Bürgmann, R., Fu, Y., 2021. Stress perturbations from hydrological and industrial loads and seismicity in the Salt Lake City region. *Journal of Geophysical Research: Solid Earth*, 126, e2021JB022362. <https://doi.org/10.1029/2021JB022362>
19. **Hu, X.***, Bürgmann, R., Fielding, E.J., Xu, X., Zhen, L., 2021. Machine-learning characterization of tectonic, hydrological and anthropogenic sources of active ground deformation in California. *Journal of Geophysical Research: Solid Earth*, 126, e2021JB022373. <https://doi.org/10.1029/2021JB022373> (**Annual Top 10 Downloads**)
20. **Hu, X.***, Xue, L., Yu, Y., Guo, S., Cui, Y., Li, Y., Qi, S.*, 2021. Remote sensing characterization of Mountain Excavation and City Construction in Loess Plateau. *Geophysical Research Letters*, 48, e2021GL095230. <https://doi.org/10.1029/2021GL095230>
21. **Hu, X.***, Bürgmann, R., Schulz, W., Fielding, E.J., 2020. Four-dimensional surface motions of the Slumgullion landslide and quantification of hydrometeorological forcing. *Nature Communications*, 11, 2792. <https://doi.org/10.1038/s41467-020-16617-7> (**Reported by NASA etc.**)
22. **Hu, X.***, Bürgmann, R., 2020. Aquifer deformation and active faulting in Salt Lake Valley, Utah, USA. *Earth and Planetary Science Letters*, 547, 116471. <https://doi.org/10.1016/j.epsl.2020.116471>
23. **Hu, X.***, Bürgmann, R., Fielding, E.J., Lee, H., 2020. Internal kinematics of the Slumgullion landslide (USA) from high-resolution UAVSAR InSAR data. *Remote Sensing of Environment*, 251, 112057. <https://doi.org/10.1016/j.rse.2020.112057>
24. **Hu, X.***, Bürgmann, R., 2020. Rheology of a debris slide from the joint analysis of UAVSAR and LiDAR data. *Geophysical Research Letters*, 47, e2020GL087452. <https://doi.org/10.1029/2020GL087452>
25. **Hu, X.***, Bürgmann, R., Lu, Z., Handwerger, A. L., Wang, T., Miao, R., 2019. Mobility, thickness, and hydraulic diffusivity of the slow-moving Monroe landslide in California revealed by L-band satellite radar interferometry. *Journal of Geophysical Research: Solid Earth*, 124, 7504–7518. <https://doi.org/10.1029/2019JB017560>
26. **Hu, X.***, Lu, Z., Wang, T., 2018. Characterization of hydrogeological properties in Salt Lake Valley, Utah using InSAR. *Journal of Geophysical Research: Earth Surface*, 123, 1257–1271. <https://doi.org/10.1029/2017JF004497>
27. **Hu, X.***, Lu, Z., Pierson, T. C., Kramer, R., George, D. L., 2018. Combining InSAR and GPS to determine transient movement and thickness of a seasonally active low-gradient translational landslide. *Geophysical Research Letters*, 45, 1453–1462. <https://doi.org/10.1002/2017GL076623>
28. **Hu, X.**, Oommen, T., Lu, Z.*, Wang, T., Kim, J. W., 2017. Consolidation settlement of Salt Lake County tailings impoundment revealed by time-series InSAR observations from multiple radar satellites. *Remote Sensing of Environment*, 202, 199–209. <https://doi.org/10.1016/j.rse.2017.05.023>

29. **Hu, X.**, Wang, T., Pierson, T. C., Lu, Z. *, Kim, J. W., Cecere, T. H., 2016. Detecting seasonal landslide movement within the Cascade landslide complex (Washington) using time-series SAR imagery. *Remote Sensing of Environment*, 187, 49–61. <https://doi.org/10.1016/j.rse.2016.10.006>
30. **Hu, X.***, Wang, T., Liao, M., 2014. Measuring coseismic displacements with point-like targets offset tracking. *IEEE Geoscience and Remote Sensing Letters*, 11(1), 283–287. <https://doi.org/10.1109/LGRS.2013.2256104>

Collaborative publications (31)

31. Yang, Y., Fang, J. *, Yu, X., Bian, W., Xia, H., **Hu, X.**, Hu, T., 2026. Building damage assessment in storm-induced disasters using multi-source remote sensing data and NBDANet, *npj Natural Hazards*. <https://doi.org/10.1038/s44304-026-00255-y>
32. Zhao, Y., Li, D. *, Nitzbon, J., Nan, Z., Song, Y.†, **Hu, X.**, Ran, Y., Tian, S., Deng, R., Luo, Y., Li, Y., 2026. Westerly induced precipitation increase drives near-surface ground ice gain on the Tibetan Plateau despite warming. *Science Advances*, 12, eaed1105. <https://doi.org/10.1126/sciadv.aed1105>
33. Zhang, J. #, Wang, F. #,*, Dong, Y. #, Mao, S., Zhang, C., **Hu, X.**, Ning, C., Chen, J., Liu, J., Chen, Y., Liu, J., Fang, Q., 2026. Tension between spatial pattern and hydrological adaptability in early Yangtze River Basin settlements. *Nature Cities*. <https://doi.org/10.1038/s44284-026-00446-8>
34. Chen, J., Li, Q., Huang, C., **Hu, X.**, Shen, Z. *, 2026. Landslide susceptibility assessment in the Central Yunnan Plateau by assembling optimized statistical and machine learning models. *Geoenvironmental Disasters*, 13, 28. <https://doi.org/10.1186/s40677-026-00380-w>
35. Shi, J., Li, J. *, Li, C., Meng, H., Sun, C., Qi, C., Pan, L., Fan, S., Tian, Z., Wang, T., Xue, L., **Hu, X.**, Chen, L., 2026. Near-Surface liquid water on Mars inferred from seasonal marsquakes. *Nature Communications*, 17, 1034. <https://doi.org/10.1038/s41467-025-67784-4>
36. Wang, G. *, Bao, Y., Zhang, S., Huang, G., **Hu, X.**, 2025. ChangePointCNN-GNSS: An AI Model for Assessing Change Points and Optimizing Site Velocity Estimation from Global GNSS Data. *Journal of Geophysical Research: Machine Learning and Computation*, 2, e2025JH000910. <https://doi.org/10.1029/2025JH000910>
37. Yang, L., Zhao, C. *, Lu, Z., **Hu, X.**, 2025. Kinematic glacier thickness inversion using 3D flow velocities from multi-track SAR images. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 18. <https://doi.org/10.1109/JSTARS.2025.3624258>
38. Yang, L., Lu, Z. *, Zhao, C. *, Zhang, Q., **Hu, X.**, Wang, B., 2025. Triggering factors and flooding processes of glacial lake outburst flood at Ranzerio lake. *npj Natural Hazards*, 2, 90. <https://doi.org/10.1038/s44304-025-00147-7>
39. Cui, J., Ran, Y.†, **Hu, X.**, Takeda, S., Zhang, J., Cui, S., Ham, K., Huang, X., Sun, F., 2025. Investigating subsidence characteristics of Kyoto Imperial Garden cultural heritage shaped by historical landscape construction, through remote sensing. *npj Heritage Science*, 13, 630. <https://doi.org/10.1038/s40494-025-02205-9>
40. Xue, L. *, **Hu, X.**, Tang, Q., Qi, S., Moucha, R., 2025. Post-anthropogenic landscape evolution: Terrain reshaping and geomorphic response in the Loess Plateau. *Geomorphology*, 488, 109976. <https://doi.org/10.1016/j.geomorph.2025.109976>
41. Yang, L., Lu, Z. *, Zhao, C., **Hu, X.**, Wang, B., 2025. Studying mass movement sources and potential glacial lake outburst flood at Jiongpu Co, southeastern Tibet, using multiple remote sensing methods and HEC-RAS model. *Journal of Geophysical Research: Earth Surface*, 130, e2024JF008067. <https://doi.org/10.1029/2024JF008067>
42. Ma, Z. *, Xu, J., Dong, B., **Hu, X.**, Hu, H., Yan, S., Zhu, S., He, K., Shi, Z., Chen, Y., Fang, X., Zhang, Q., Gu, S., Weng, F., 2025. GMCP: A fully Global multi-source Merging-and-Calibration Precipitation dataset (1-hourly, 0.1°, global, 2000–Present). *Bulletin of the American Meteorological Society*, 106(4), E596–E624. <https://doi.org/10.1175/BAMS-D-24-0051.1>

43. Tian, S., Sha, A., Luo, Y., Ke, Y., Spencer, R., **Hu, X.**, Ning, M., Zhao, Y., Deng, R., Gao, Y., Liu, Y., Li, D.^{*}, 2025. A novel framework for river organic carbon retrieval through satellite data and machine learning. *ISPRS Journal of Photogrammetry and Remote Sensing*, 221, 109-123. <https://doi.org/10.1016/j.isprsjprs.2025.01.028>
44. Tang, F., Qi, S., Guo, S.^{*}, Li, Y., Guo, X., Lu, X., Zou, Y., Wang, X., **Hu, X.**, Ma, L., Zheng, B., Wang, Z., 2025. The Influence of Reservoirs on Landslide Erosion. *Remote Sensing*, 17, 569. <https://doi.org/10.3390/rs17040569>
45. Ao, Z., Hu, X.L., Tao, S.^{*}, **Hu, X.**, Wang, G., Li, M., Wang, F., Hu, L., Liang, X., Qi, W., Ran, Q., Yusup, A., Xiao, J., Fang, J., Chang, J., Zeng, Z., Fu, Y., Xue, B., Wang, P., Zhao, K., Li, L., Li, W., Li, Y., Jiang, M., Yang, Y., Shen, H., Zhao, X., Shi, Y., Wu, B., Yan, Z., Wang, M., Su, Y., Hu, T., Ma, Q., Bai, H., Wang, L., Yang, Z., Feng, Y., Zhang, D., Huang, E., Pan, J., Ye, H., Yang, C., Qin, Y., He, C., Guo, Y., Cheng, K., Ren, Y., Yang, H., Zheng, C., Zhu, J., Wang, S., Ji, C., Zhu, B., Liu, H., Tang, Z., Wang, Z., Zhao, S., Tang, Y., Xing, H., Guo, Q., Liu, Y., Fang, J., 2024. A national-scale assessment of land subsidence in China's major cities. *Science*, 384(6693), 301-306. <https://doi.org/10.1126/science.adl4366>
46. Zheng, W., Hu, J.^{*}, Lu, Z., **Hu, X.**, Sun, Q., Liu, J., Huang, B., 2024. Enhancing 4-D landslide monitoring and block interaction analysis with a novel Kalman-Filter-Based InSAR approach. *Journal of Geophysical Research: Earth Surface*, 129, e2024JF007923. <https://doi.org/10.1029/2024JF007923>
47. Li, X., Yu, X.[†], Burgi, P., Wald, D., **Hu, X.**, Xu, S.^{*}, 2025. Rapid building damage estimates from the M7.8 Turkey Earthquake sequence via causality-informed Bayesian inference from satellite imagery. *Earthquake Spectra*, 41(1). <https://doi.org/10.1177/87552930241290501> (**Editor's Choice; Journal cover image**)
48. Ye, X., Zhu, H.^{*}, Wu, B., Tian, F., Zhang, W., **Hu, X.**, Schenato, L., Pasuto, A., Catani, F., 2024. Near-surface soil hydrothermal response feedbacks landslide activity and mechanism. *Engineering Geology*, 341, 107690. <https://doi.org/10.1016/j.enggeo.2024.107690>
49. Thomas, J., Klida, R., Oommen, T.^{*}, Sajinkumar, K.S., Zhang, B., **Hu, X.**, 2024. Need for a multi-sensor monitoring approach for embankment failures: lessons learned from the Edenville Dam failure. *Environmental & Engineering Geoscience*, 30(1-2), 19–30. <https://doi.org/10.21663/EEG-D-23-00056>
50. Li, Y., Cui, Y.^{*}, **Hu, X.**, Lu, Z., Guo, J., Wang, Y., Wang, H., Wang, S., Zhou, X., 2024. Glacier retreat in Eastern Himalaya drives catastrophic glacier hazard chain. *Geophysical Research Letters*, 51(8), e2024GL108202. <https://doi.org/10.1029/2024GL108202>
51. Zhou, C., Cao, Y.^{*}, Gan, L., Wang, Y., Motagh, M., Roessner, S., **Hu, X.**, Yin, K., 2024. A novel framework for landslide displacement prediction using MT-InSAR and machine learning techniques. *Engineering Geology*, 334, 107497. <https://doi.org/10.1016/j.enggeo.2024.107497>
52. Welch, J., Wang, G.^{*}, Bao, Y., Zhang, S., Huang, G., **Hu, X.**, 2024. Unveiling the Hidden Threat: Drought-Induced Inelastic Subsidence in Expansive Soils. *Geophysical Research Letters*, 51(7), e2023GL107549. <https://doi.org/10.1029/2023GL107549>
53. Chen, X.^{*}, Xu, X., Ma, Y., Wang, G., Chen, D., Cao, D., Xu, X., Zhang, Q., Li, L., Liu, Y., Liu, L., Li, M., Luo, S., Wang, X., **Hu, X.**, 2024. Investigation of precipitation process in the water vapor channel of the Yarlung Zsangbo Grand Canyon. *Bulletin of the American Meteorological Society*. <https://doi.org/10.1175/BAMS-D-23-0120.1>
54. Li, X., Dimasaka, J., Zhang, X., Yu, X.[†], Wang, C., **Hu, X.**, Noh, H. Y., Zhao, X., Xu, S.^{*}, 2023. Seismic impacts report for M7.8 and M7.5 Turkey-Syria earthquake using near real-time crowdsourcing and remote sensing information. *DesignSafe-CI*. <https://doi.org/10.17603/ds2-vnsc-y870>

(15 days after the mainshock, this work was launched as an interactive map in the Turkish earthquake information platform funded by AFET PLATFORMU (Disaster Platform) and Turkish Philanthropy Funds. <https://afetharitasi.org/>)

55. Yang, L., Lu, Z., Ouyang, C., Zhao, C.*, **Hu, X.**, Zhang, Q., 2023. Glacial lake outburst hazard monitoring and flooding modeling by integrating multiple remote sensing methods and HEC-RAS. *Remote Sensing*. <https://doi.org/10.3390/rs15225327>
56. Zheng, W., Hu, J.*, Lu, Z., **Hu, X.**, Sun, Q., Liu, J., Zhu, J., Li, Z., 2023. Enhanced kinematic inversion of 3-D displacements, geometry, and hydraulic properties of a north-south slow-moving landslide in Three Gorges Reservoir. *Journal of Geophysical Research: Solid Earth*, 128, e2022JB026232. <https://doi.org/10.1029/2022JB026232> (**Annual Top 10 Citation**)
57. Qi, S.*, Hou, X., Yu, Y., Zhang, Y., **Hu, X.**, Zhang, L., Li, Z., Guo, S., Zhang, F., Li, T., Peng, J., 2022. Collapse and subsidence mechanism of compacted loess and suitability of mountain bulldozing and city creation projects in the Loess Plateau of China. *Science Bulletin* (In Chinese).
58. Zhou, C., Cao, Y., **Hu, X.**, Yin, K.*, 2022. Enhanced dynamic landslide hazard assessment using MT-InSAR method in the Three Gorges Reservoir Area. *Landslides*, 19, 1585–1597. <https://doi.org/10.1007/s10346-021-01796-1>
59. Shi, G., Ma, P.*, **Hu, X.**, Song, X., Huang, B., Lin, H., 2021. Surface response and subsurface features during the restriction of groundwater exploitation in Suzhou (China) inferred from decadal SAR interferometry. *Remote Sensing of Environment*, 256, 112327. <https://doi.org/10.1016/j.rse.2021.112327>
60. Shi, Z.M., **Hu, X.**, Wang, C.Y.*, 2021. Hydro-mechanical coupling in the shallow crust – insight from groundwater level and satellite radar imagery in a mining area. *Journal of Hydrology*, 594, 125649. <https://doi.org/10.1016/j.jhydrol.2020.125649>
61. Kim, J.W., Lu, Z.*, Qu, F., **Hu, X.**, 2015. Pre-2014 mudslides at Oso revealed by InSAR and multi-source DEM analysis. *Geomatics, Natural Hazards and Risk*, 6(3), 184–194. <https://doi.org/10.1080/19475705.2015.1016556>

RESEARCH GRANTS

International

MIT Greater China Fund for Innovation (**Co-I**; \$29,856; PI: Dr. Gaia Stucky de Quay) 2026-2027
Automating Crater Mapping for Martian and Lunar Chronology

In China - total grant funding to Hu: \$474,000 USD

Beijing Natural Science Foundation (**\$28,000 USD; PI**) 2025-2027
Monitoring and diagnosis of geological and flood disasters in Beijing-Tianjin-Hebei region

Ministry of Science and Technology of China (**\$145k USD to me; PI of remote sensing sector**)
 2024-2027

State Key Laboratory of Cryospheric Science (**\$7k USD; PI**) 2024-2026
Permafrost deformation and disasters on the Tibetan Plateau

China Geological Survey (**\$7k USD; PI**) 2024-2025
The applicability and deformation prediction of landslide deformation monitoring based on SAR/GNSS

PKU interdisciplinary Grant (**\$14k USD to me; Co-I**) 2024
Inversion of sediment change in the Brahmaputra River based on multi-source remote sensing and its impact on cascade reservoirs

China National Space Science Data Center (**\$12k USD; PI**) 2024
Inventorying lunar impact craters based on multi-modal remote sensing data

NNSF-China Regular Grant (**\$64k USD; PI**) 2024-2027
Investigation of landslide mechanisms in active tectonics using SAR remote sensing

NNSF-China Special Topics Grant (**\$36k USD; PI**) 2023

Deep-learning multi-landforms in Valles Marineris on Mars and analogs on Earth

NNSF-China Early Career Grant (**\$138k USD; PI**) 2023-2025
Geohazard remote sensing

PKU interdisciplinary Grant (**\$23k USD; PI**) 2023
Inventorizing retrogressive thaw slumps in Qinghai-Tibet Plateau based on deep learning and multi-source remote sensing datasets

In the U.S. - total grant funding to Hu: \$480 k USD

NASA New (Early Career) Investigator Program in Earth Science (**\$375,000; PI**) 2021-2024
Four-dimensional landslide quantification in the Western U.S. using remote sensing big data

Southern California Earthquake Center (SCEC) (\$20,217; senior participant) 2020-2021
Separation of tectonic, hydrological and anthropogenic sources of ground deformation in Southern California

California Energy Commission Program grant (\$148,626; senior participant) 2018-2021
Development of an integrated methodology for assessing integrity of levees protecting natural gas infrastructure

NASA Earth Surface & Interior Program grant (\$210,097; senior participant) 2018-2019
Environmental controls on landslide motion revealed by InSAR and pixel offset tracking

NASA Earth and Space Science Fellowship (**\$104,894; PI**) 2015-2018
Quantifying landslide dynamics using InSAR: applications to landslides in northwestern USA

Satellite imagery grants to Hu:

Joint DLR-INTA Scientific Announcement of Opportunity (PI) 2022-2025
Joint TSX/TDX/PAZ characterization of mountain excavation and city construction

The 3rd Research Announcement on the Earth Observations (60 scenes quota; PI) 2022-2025
Slow-moving landslide characterization using SAR remote sensing

Utilization of TerraSAR-X / TanDEM-X Data for Scientific Use (150 scenes quota; PI) 2021-2023
High-accuracy land deformation and surface change mapping for coastal resilience

INVITED PRESENTATIONS/SEMINAR TALKS IN THE U.S./U.K.

COMET+ Webinar (virtual)	8/20/2025
University of Edinburgh (virtual)	7/10/2025
U.S. Geological Survey, Golden, CO	5/6/2025
University of California, Berkeley (Berkeley Seismology Lab)	4/22/2025
University of Connecticut (virtual)	2/2023
AGU Fall Meeting invited talk	12/2022
University of Texas, Austin (virtual)	9/17/2021
Washington University in St. Louis (virtual)	5/17/2021
University of Oregon, Eugene, OR (virtual)	10/7/2020
Southern Methodist University, Dallas	1/31/2020
University of Houston	1/29/2020
Berkeley Seismology Lab Earthquake Research Affiliates Meeting	5/1/2019
University of California, Berkeley (Department of Civil and Environmental Engineering)	3/20/2019

University of Oregon, Eugene	11/27/2018
U.S. Geological Survey, Menlo Park, CA	11/14/2018
University of California, Berkeley (Berkeley Seismology Lab)	9/25/2018

PROFESSIONAL SERVICES

AGU Canvassing Committee and Travel Grant Committee

Natural Hazards Section	2024-present
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Associate Editor

<i>Journal of Geophysical Research: Machine Learning and Computation</i>	2024-present
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<i>Pure and Applied Geophysics</i>	2021-present
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<i>GeoHazards</i>	2025-present
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Co-convenor

European Geosciences Union Natural Hazards Session	Annually since 2021
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JOURNAL REVIEWER (SELECTED)

Nature; Nature Communications; Nature Reviews Earth & Environment; Nature Water; Earth-Science Reviews; Geophysical Research Letters; Water Resources Research; Journal of Geophysical Research: Solid Earth; Journal of Geophysical Research: Earth Surface; Earth, Planets and Space; Remote Sensing of Environment; Catena; Landslides; Engineering Geology

TEACHING

Advanced GIS Techniques and Applications (PKU undergraduate course; 3 credits)	2022F 2023F 2024F
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SAR Remote Sensing (PKU and UH graduate course; 3 credits)	2024F 2023S 2020F
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Special Topics on Microwave Remote Sensing in Geoscience (PKU graduate course; 2 credits)	2023F
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MEMBERSHIP

AGU | EGU | IEEE | AOGS

GRADUATE STUDENTS AND POSTDOCTORAL ADVISEES

5 PhD: Yuqi Song (2022-), Yongxuan Ran (2023-), Yiling Lin (2023-), Feng Lin (2024-), Xiao Yu (served as her second adviser at UH; research assistant in my lab during summertime; corresponding author on two of Xiao's papers)

4 Master: Penghui Wu (2022-2025), Jinghui Xiao (2024-), Yuanzhuo Zhou (2025-), Mei Chen (2026-)

2 Postdoc: Hanwen Yu (2021@UH), Sayyed Mohammad Javad Mirzadeh (2023-2024)