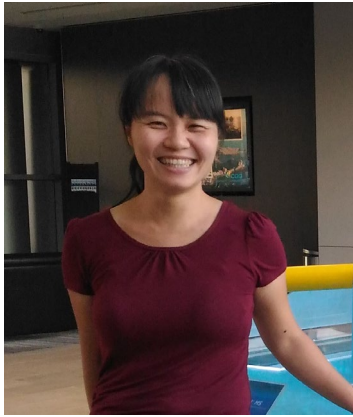


# Curriculum Vitae

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## WORK EXPERIENCE

### **Institute of Earth Sciences, Academia Sinica, Taiwan**

Associate Research Fellow, 2024

Assistant Research Fellow, 2018

### **Earth Observatory of Singapore (EOS), Nanyang Technological University, Singapore**

Collaborator, January 2018 - present

Senior Research Fellow, June - December 2017

- Develop, maintain and improve interferometric synthetic aperture radar (InSAR) automatic processing system
- Connect with InSAR end product users and map the demands back to production line

### **CGG, Singapore**

Project Leader, April 2015 - March 2017

- Autonomous on complex processing projects, and responsible for the execution of projects
- Velocity model building, tilt-orthorhombic model update and full-waveform inversion (FWI)
- Kirchhoff Pre-Stack Depth Migration (PSDM) and Reverse Time Migration (RTM)

Staff Geophysicist, April 2014 - March 2015

- PSTM and PSDM processing, client communication and project coordinating

Geophysicist, August 2013 - March 2014

- PSTM processing

### **BP America, Houston, US**

Geophysicist Intern, Seismic Delivery Team for the Gulf of Mexico region, April - June 2012

- Seismic azimuthal anisotropy analysis

### **Chinese Petroleum Corporation, Taiwan**

Geophysicist, January - February 2007

- Review of exploration proposals in Asia Pacific and North Africa region

### **National Taiwan University, Taiwan**

Research Assistant, Department of Geosciences, February 2005 - December 2006, March - August 2007

- Pleistocene sedimentary history of lacustrine terraces in southern Tibet (2007)
- Active tectonics of northwestern Taiwan (2005-2006)

## EDUCATION

### **California Institute of Technology**

PhD in Geology, 2013

- Dissertation: *Using space geodesy to constrain variations in seismogenic behavior on subduction megathrusts*

### **National Taiwan University, Taiwan**

Master of Science in Geology, 2005

- Dissertation: *Surface deformation and seismogenic structure model of the 1935 Hsinchu-Taichung earthquake ( $M_{GR}=7.1$ ), in Miaoli, northwestern Taiwan*

## PROJECTS

**Model Building and Deep Imaging for the Kaoping Upper Slope Domain in Offshore SW Taiwan**

August 2022 – July 2025

Funding Agency: National Science and Technology Council, Taiwan

Role: Principal Investigator

**SAR Imaging Simulation and Database Construction for Environment and Disaster Prevention**

May 2022 – April 2025

Funding Agency: National Science and Technology Council, Taiwan

Role: Principal Investigator for subproject

**From a City to a Country: Multi-scale SAR Processing Techniques and Applications**

May 2021 – July 2023

Funding Agency: Ministry of Science and Technology, Taiwan

Role: Principal Investigator

**Understanding the Landslide and Erosion Processes: multidisciplinary research on landslides**

**(closed)**

January 2019 – December 2021

Funding Agency: Academia Sinica, Taiwan

Role: Principal Investigator of subproject

**Mud Diapir Tectonics in SW Taiwan (closed)**

September 2018 – July 2021, MOST Project

Funding Agency: Ministry of Science and Technology, Taiwan

Role: Principal Investigator

**Automatic Geodetic Processing System for Disaster Response and Monitoring of Hazards in Asia**

**(closed)**

June 2017 – June 2021, EOS

Funding Agency: Earth Observatory of Singapore

Role: Post-doctoral Research Fellow

**CNOOC 3D PSTM MAZSTACK (closed)**

August 2016 - March 2017, CGG

Role: Project Leader

**Repsol CRD 3D QPSDM (closed)**

August 2015 - August 2016, CGG

Role: Project Leader

**Shell Brunei FWI and QRTM (closed)**

December 2014 - July 2015, CGG

Role: Project Leaser

**Shell Brunei 3D PSTM and PSDM (closed)**

August 2013 - November 2014, CGG

Role: Staff Geophysicist

**PUBLIC SERVICE**

**Editorial Service**

Journal of Photogrammetry and Remote Sensing

**Peer Review Service**

Bulletin of the American Meteorological Society (BAMS)

Geophysical Research Letters (GRL)

Geoscience Letters (GOSL)

Journal of Applied Earth Observation and Geoinformation (JAG)

Journal of Applied Remote Sensing (JARS)

Journal of Geophysical Research: Solid Earth (JGR Solid Earth)

Journal of Hydrology

Marine Geophysical Research (MGR)

Remote Sensing of Environment (RSE)

Scientific Report

Terrestrial, Atmospheric and Oceanic Sciences (TAO)

Tectonophysics

### Institute Service

Chair of IES-HPC Committee (Jan 2023 – present)  
Chair of the IES Information Committee (Jan 2020 – Dec 2022)

### Other Service

Review Committee for Petroleum Fund (Sep 2018 – Dec 2020)

## HONORS

**2023, Member of editorial board**, Journal of Photogrammetry and Remote Sensing  
**2019, Invited lecturer**, IRDR ICoE-Taipei Advanced Institute Training Course on Landslide  
**2011, HSBC Award**, Chinese-American Engineers and Scientists Association of Southern Californian (CESASC)  
**2009, Phi Tau Phi Scholastic Honor Society of America**, Phi Tau Phi Foundation  
**2009, Alexander and Geraldine Wanek Named Grant**, American Association of Petroleum Geologists Foundation  
**2007, Taiwan Merit Award**, Ministry of Education, Taiwan  
**2005, Dean's Award**, College of Science, National Taiwan University  
**2003, Dean's Award**, College of Social Sciences, National Taiwan University  
**2004, Outstanding Student Poster Award**, Joint Geosciences Assembly, Taiwan

## TEACHING

**Taiwan International Graduate Program – 2023/Fall – ES7103**  
Fundamentals of Active and Passive Remote Sensing

**National Taiwan University – 2023/Spring – Geo5165**  
Synthetic Aperture Radar Integrated Data Analysis

**Taiwan International Graduate Program – 2021/Spring – ES7078**  
Special topics on Synthetic Aperture Radar (II)

**Taiwan International Graduate Program – 2020/Fall – ES7077**  
Special topics on Synthetic Aperture Radar (I)

## FULL PUBLICATION LIST

- First or corresponding author is listed in **blue**

### Work under review/revision/preparation:

**46.** Y.-C. Chen, **Y.N. Lin\***, H. Tung, P.T.Y. Shih, T.-A. Teo, First SAR tomography-based large-scale structural health monitoring in the Taipei Metropolitan, Taiwan, *under preparation*.

**45.** **Lin, Y.N.\***, Y.-C. Chen, C. Tay, A. Bhardwaj, E.M. Hill, S.-H. Yun, A growing split-based approach for urban flood detection using multi-temporal SAR intensity images, *under revision*.

### Work published:

**44.** Wang, C.-Y., **Y.N. Lin\***, C. Huang, C K Shum (2024) Observing glacial isostatic adjustment by PSInSAR in southern Hudson Bay, *Remote Sensing of Environment*, 304, 114023, doi: [10.1016/j.rse.2024.114023](https://doi.org/10.1016/j.rse.2024.114023).

43. Peng, D.J., **Y.N. Lin**, J.-C. Lee, H.-H. Su, E.M. Hill (2024) Multi-constellation GNSS interferometric reflectometry for tidal analysis: mitigations for K1 and K2 biases due to GPS geometrical errors, *Journal of Geodesy*, 98, 5, doi: [10.1007/s00190-023-01812-3](https://doi.org/10.1007/s00190-023-01812-3).

**42.** Tang, C.-H., **Y.N. Lin\***, H. Tung, Y. Wang, S.-J. Lee, Y.-J. Hsu, J.B.H. Shyu, Y.-T. Kuo, H.-Y. Chen (2023) Nearby fault interaction within the double-vergence suture in eastern Taiwan during the 2022 Chihshang earthquake sequence, *Communications Earth & Environment*, 4(1), 333, doi: [10.1038/s43247-023-00994-0](https://doi.org/10.1038/s43247-023-00994-0).

41. Y.-W. Lin, Y.-M. Li, C.-Y. Su, **Y.N. Lin** (2023) Semantic segmentation of petrographic thin section images using DeepMIB: Lessons learned from the first attempt in Taiwan, *Petroleum Geology of Taiwan*, 46, 1-26.

40. Tang, C.-H., Y.-J. Hsu, T. Bacolcol, **Y. N. Lin**, H.-Y. Chen, Y.-T. Kuo, H.-H. Su, H.-M. Lee, A. Pelicano, G. Sapla, S.-B. Yu (2023) Oblique blink faulting underneath the Luzon volcanic arc during the 2022 Mw 7.0 Abra earthquake, the Philippines. *Geophysical Research Letters*, 50(9), e2023GL103659, doi: [10.1029/2023GL103659](https://doi.org/10.1029/2023GL103659)

39. 林玉儂 (2023) 合成孔径雷達：穿透雲雨、透視地表的秘密。科學發展月刊，640期，12-17, <https://www.scimonth.com.tw/archives/6356>.

38. Alcântara, E., J.A. Marengo, J. Mantovani, L.R. Londe, R.L.Y. San, E. Park, **Y. N. Lin**, J. Wang, T. Mendes, A.P. Cunha, L. Pampuch, M. Seluchi, S. Simões, L.A. Cuartas, D. Goncalves, K. Massi, R. Alvalá, O. Moraes, C.S. Filho, R. Mendes, C. Nobre (2023). Deadly disasters in southeastern South America: flash floods and landslides of February 2022 in Petrópolis, Rio de Janeiro. *Nat. Hazards Earth Syst. Sci.*, 23, 1157-1175. doi: [10.5194/nhess-23-1157-2023](https://doi.org/10.5194/nhess-23-1157-2023)
37. Wang, Y., **Y. N. Lin\***, Y. Ota, L.-H. Chung, J. B. H. Shyu, H.-W. Chiang, Y.-G. Chen, H.-H. Hsu, C.-C. Shen (2022), Mud Diapir or fault-related fold? On the development of an active mud-cored anticline offshore southwestern Taiwan, *Tectonics*, e2022TC007234, doi: [10.1029/2022TC007234](https://doi.org/10.1029/2022TC007234).
36. **Lin, Y.N.**, Chen, Y.-C., Kuo, Y.-T., Chao, W.-A. (2022) Performance Study of Landslide Detection Using Multi-Temporal SAR Images. *Remote Sensing*, 1-14, doi: [10.3390/rs14102444](https://doi.org/10.3390/rs14102444).
35. Nguyen, M., **Y.N. Lin\***, Q.C. Tran, C.-F. Ni, Y.-C. Chan, K.-H. Tseng, C.-P. Chang (2022) Assessment of long-term ground subsidence and groundwater depletion in Hanoi, Vietnam. *Engineering Geology*, 299, 106555, doi: [10.1016/j.enggeo.2022.106555](https://doi.org/10.1016/j.enggeo.2022.106555)
34. Lai, S.-Y., **Y.N. Lin\***, H.-H. Hsu (2022) Efficient 2D multiple attenuation using SRME with curvelet-domain subtraction. *Marine Geophysical Research*, 43, 1, doi: [10.1007/s11001-021-09464-8](https://doi.org/10.1007/s11001-021-09464-8)
33. Ayani, R. H., K. E. Ching, I. M. Anjasmara, and **Y. N. Lin** (2021), Crustal Deformation of the Kendeng Fault Branches Area from GNSS and InSAR Data in Surabaya City, Indonesia, *IOP Conference Series: Earth and Environmental Science*, 936(1), 012019, doi:[10.1088/1755-1315/936/1/012019](https://doi.org/10.1088/1755-1315/936/1/012019).
32. Park, E., H. L. Ho, D. V. Binh, S. Kantoush, D. Poh, E. Alcantara, S. Try, and **Y.N. Lin** (2021) Impact of agricultural expansion of floodplain water and sediment budgets in the Mekong River, *Journal of Hydrology*, 605, 1-11, doi: [10.1016/j.jhydrol.2021.127296](https://doi.org/10.1016/j.jhydrol.2021.127296)
31. **Lin, Y. N.**, Park, E., Wang, Y., Quek, Y. P., Lim, J., Alcantara, E., & Loc, H. H. (2021). The 2020 Hpakant Jade Mine Disaster, Myanmar: A multi-sensor investigation for slope failure. *ISPRS Journal of Photogrammetry and Remote Sensing*, 177, 291-305. doi: [10.1016/j.isprsjprs.2021.05.015](https://doi.org/10.1016/j.isprsjprs.2021.05.015)
30. Latrubesse, E. M., E. Park, K. Sieh, T. Dang, **Y.N. Lin**, S.-H. Yun (2020) Dam failure and a catastrophic flood in the Mekong basin (Bolaven Plateau), southern Laos, 2018, *Geomorphology*, 362, 107221, doi: [10.1016/j.geomorph.2020.107221](https://doi.org/10.1016/j.geomorph.2020.107221)
29. L. H. da Silva Rotta, E. Alcantara, E. Park, R. G. Negri, **Y.N. Lin**, N. Bernardo, T. S. G. Mendes, C. S. Filho (2020) The 2019 Brumadinho tailings dam collapse: Possible cause and impacts of the worst human and environmental disaster in Brazil, *International Journal of Applied Earth Observation and Geoinformation*, 90, 102119, doi: [10.1016/j.jag.2020.102119](https://doi.org/10.1016/j.jag.2020.102119)
28. **Lin, Y.N.\***, H.-S. Yun, A. Bhardwaj and Emma M. Hill (2019), Urban flood detection with Sentinel-1 Multi-Temporal Synthetic Aperture Radar (SAR) Observations in a Bayesian Framework: A case study for Hurricane Matthew, *Remote Sens.*, 1778; doi:[10.3390/rs11151778](https://doi.org/10.3390/rs11151778)
27. Gong, Z., Wu, X., **Y.N. Lin**, N. Benfield and J. Pi Alperin (2018), Non-linear scanning tomography for velocity model building in seismic-obscured areas, *SEG Technical Program Expanded Abstracts 2018*, pp. 5128-5132, doi: [10.1190/segam2018-2996484.1](https://doi.org/10.1190/segam2018-2996484.1)
26. Xie, Y., Z. Zhou, J. Hu, L. Xu, X. Wu, **Y.N. Lin.**, F. C. Loh, L. Liu and Z. Wang (2017), Orthorhombic full-waveform inversion for imaging the Luda field using wide-azimuth ocean-bottom-cable data, *The Leading Edge*, 3691, 75-80, doi: [10.1190/tle36010075.1](https://doi.org/10.1190/tle36010075.1).
25. Kuo, Y.-T., C.-S. Ku, Y.-G. Chen, Y. Wang, **Y.N. Lin**, R. Y. Chuang, Y.-J. Hsu, F. W. Taylor, B.-S. Huang, and H. Tung (2016), Characteristics on fault coupling along the Solomon megathrust based on GPS observations, *Geophysical Research Letters*, 43, 8519-8526, doi:[10.1002/2016GL070188](https://doi.org/10.1002/2016GL070188).
24. Xie, Y., Z. Zhou, J. Hu, L. Xu, **Y.N. Lin.**, B. Zhou, X. Wu and Z. Wang (2016), Orthorhombic full-waveform inversion for wide-azimuth data imaging, *SEG Technical Program Expanded Abstracts 2016*, doi: [10.1190/segam2016-13822505.1](https://doi.org/10.1190/segam2016-13822505.1).
23. **Lin, Y.N.**, X. Wu, Y. Xie, J. Zhou, S. Sulaiman and J. Turner (2016), Imaging through mega gas clouds in offshore Brunei, 78<sup>th</sup> *EAGE Annual Conference Expanded Abstract*, doi: [10.3997/2214-4609.201601350](https://doi.org/10.3997/2214-4609.201601350).
22. **Lin, Y.N.**, R. Jolivet, M. Simons, P.S. Agram, H.R. Martens, Z. Li ,and S. H. Lodi (2015), High interseismic coupling in the Eastern Makran (Pakistan) subduction zone, *Earth and Planetary Science Letters*, 06/2015; doi:[10.1016/j.epsl.2015.03.037](https://doi.org/10.1016/j.epsl.2015.03.037).

21. Wang, Yu, **Y.N. Lin**, M. Simons, and S. T. Tun (2014). Shallow rupture of the 2011 Tarlay earthquake (Mw 6.8), Eastern Myanmar, *BSSA Bulletin*, doi:[1785/0120120364](https://doi.org/10.1785/0120120364).
20. Jolivet, R., P. Agram, **Y.N. Lin**, M. Simons, M.-P. Doin, G. Peltzer, and Z. Li (2014). Improving InSAR geodesy using Global Atmospheric Models, *Journal of Geophysical Research*, doi [10.1002/201358010558](https://doi.org/10.1002/201358010558).
19. Huang, S.-Y., Y.-G. Chen, G. S. Burr, M. K. Jaiswal, **Y. N. Lin**, G. Yin, J. Liu, S. Zhao, and Z. Cao (2014), Late Pleistocene sedimentary history of multiple glacially dammed lake episodes along the Yarlung-Tsangpo river, southeast Tibet, *Quaternary Research* 09/201, doi: [10.1016/j.yqres.2014.06.001](https://doi.org/10.1016/j.yqres.2014.06.001).
18. **Lin, Y.N.**, A. Sladen, F. Ortega-Culaciati, M. Simons, J.-P. Avouac, E. J. Fielding, B. A. Brooks, M. Bevis, J. Genrich, A. Rietbrock, C. Vigny, R. Smalley, and A. Socquet (2013), Coseismic and postseismic slip associated with the 2010 Maule Earthquake, Chile: Characterizing the Arauco Peninsula barrier effect, *Journal of Geophysical Research*, 01/2013; 118:3142–3159, doi: [10.1002/jgrb.50207](https://doi.org/10.1002/jgrb.50207).
17. Agram, P. S., R. Jolivet, B. Riel, **Y. N. Lin**, M. Simons, E. Hetland, M.-P. Doin, and C. Lasserre (2013), New radar interferometric time series analysis toolbox released, *Eos, Transactions American Geophysical Union*. 02/2013; 94(7):69-70, doi: [10.1002/2013EO070001](https://doi.org/10.1002/2013EO070001).
16. Wang, Yu, J. B. H. Shyu, K. Sieh, H.-W. Chiang, C.-C. Wang, T. Aung, **Y. N. Lin**, C.-C. Shen, S. Min, O. Than, K. K. Lin, and S. T. Tun (2013), Permanent upper plate deformation in western Myanmar during the great 1762 earthquake: Implications for neotectonic behavior of the northern Sunda megathrust, *Journal of Geophysical Research*, 03/2013; 118(3):1277-1303, doi: [10.1002/jgrb.50121](https://doi.org/10.1002/jgrb.50121).
15. Hetland, E. A., P. Musé, M. Simons, **Y. N. Lin**, P. S. Agram, and C. J. DiCaprio (2012), Multiscale InSAR Time Series (MInTS) analysis of surface deformation, *Journal of Geophysical Research* 117, B02404, doi:[10.1029/2011JB008731](https://doi.org/10.1029/2011JB008731).
14. **Lin, Y. N.**, A. P. Kositsky, and J.-P. Avouac (2010a), PCAIM joint inversion of InSAR and ground-based geodetic time series: Application to monitoring magmatic inflation beneath the Long Valley Caldera, *Geophysical Research Letters*, 37, L23301, doi:[10.1029/2010GL045769](https://doi.org/10.1029/2010GL045769).
13. **Lin, Y. N.**, M. Simons, E. A. Hetland, P. Muse, and C. DiCaprio (2010b), A multiscale approach to estimating topographically correlated propagation delays in radar interferograms, *Geochemistry, Geophysics, Geosystems*, 11, Q09002, doi:[10.1029/2010GC003228](https://doi.org/10.1029/2010GC003228).
12. **Lin, Y. N.**, K. Sieh, and J. Stock (2010c), Submarine landslides along the Malacca Strait-Mergui Basin shelf margin: Insights from sequence-stratigraphic analysis, *Journal of Geophysical Research*, 115, B12102, doi:[10.1029/2009JB007050](https://doi.org/10.1029/2009JB007050).
11. Wu, T.-S., M.K. Jaiswal, **Y.N. Lin**, Y.-W. Chen, Y.-G. Chen (2010), Residual luminescence in modern debris flow deposits from western Taiwan: A single grain approach. *Journal of Asian Earth Sciences*, 38, 274-282, doi: [10.1016/j.jseaes.2010.02.002](https://doi.org/10.1016/j.jseaes.2010.02.002).
10. K. Megawati, F. Shaw, K. Sieh, Z.Huang, T.-R. Wu, **Y. N. Lin**, S. K. Tan, T.-C. Pan (2009), Tsunami hazard from the subduction megathrust of the South China Sea: Part I. Source characterization and the resulting tsunami, *Journal of Asian Earth Sciences*, 36(2009) 13-20, doi:[10.1016/j.jseaes.2008.11.012](https://doi.org/10.1016/j.jseaes.2008.11.012)
9. Ota, Y., **Y. N. Lin**, Y.-G. Chen, N. Matsuta, T. Watanuki, and Y.-W. Chen (2009), Touhuanping Fault, an active wrench fault within fold-and-thrust belt in northwestern Taiwan, documented by spatial analysis of fluvial terraces, *Tectonophysics* 09/2009; 474(3):559-570, doi: [10.1016/j.tecto.2009.04.034](https://doi.org/10.1016/j.tecto.2009.04.034).
8. Ota, Y., T. Azuma and **Y. N. Lin** (2009) Application of INQUA Environmental Seismic Intensity Scale to recent earthquakes in Japan and Taiwan. *Geological Society of London Special Publications*, 316, 55-71, doi: [10.1144/SP316.4](https://doi.org/10.1144/SP316.4).
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6. Chung, L.-H., Y.-G. Chen, Y.-M. Wu, J. B. H. Shyu, Y.-T. Kuo, **Y. N. Lin** (2008), Seismogenic faults along the major suture of the plate boundary deduced by dislocation modeling of coseismic displacements of the 1951 M7.3 Hualien–Taitung Earthquake sequence in eastern Taiwan, *Earth and Planetary Science Letters* 269, 416-426, doi: [10.1016/j.epsl.2008.02.035](https://doi.org/10.1016/j.epsl.2008.02.035).
5. Chen, Y.-G., J.-H. Hung, K.-Y. Lai, **Y. N. Lin**, T. Wilcox, and K. Mueller (2007), River terrace development in

response to folding above active wedge thrusts in Houli, Central Taiwan, *Journal of Asian Earth Sciences* 31 240–250, doi: [10.1016/j.jseas.2006.07.023](https://doi.org/10.1016/j.jseas.2006.07.023).

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2. **林玉儂**、衣德成、鍾令和、太田陽子、陳于高 (2006) 獅潭斷層的昨日與今日. 地質 25 卷 4 期, 50-61.

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