Lin Liu — Curriculum Vitae

Earth System Science Programme
Faculty of Science
The Chinese University of Hong Kong

Lab website: cryocuhk.github.io
Email: liulin@cuhk.edu.hk
ORCID: 0000-0002-9581-1337

Education

Ph.D. in Geophysics, University of Colorado at Boulder, USA (Advisor: John Wahr) 2011
B.Sc. in Geophysics, Wuhan University, China 2005

Research Interests

- Cryosphere
- Geodesy and Geophysics
- Remote Sensing
- Deep Learning Application in Earth System Science
- Interactions of Solid Earth with Cryosphere, Atmosphere, and Ocean

Honors and Awards (since graduate school)

Exemplary Teaching Award, Faculty of Science, CUHK 2016
George Thompson Postdoctoral Fellowship, Stanford University 2011–2013
NASA Earth and Space Science Fellowship 2008–2011
CIRES Graduate Research Assistant Fellowship, University of Colorado 2006–2007

Professional Experience

The Chinese University of Hong Kong (CUHK) 2014–present
Assistant Professor, Earth System Science Programme, Faculty of Science
Research Fellow, Institute of Environment, Energy and Sustainability
Research Fellow, Institute of Space and Earth Information Science
Visiting Scholar, Stanford University 2014–present
George Thompson Postdoctoral Fellow, Stanford University 2011–2013
Research Assistant, University of Colorado 2006–2011

Teaching Experience

Exploring the Earth System (ESSC1000), CUHK Fall 2016–2018
Solid Earth Dynamics (ESSC2010), CUHK Spring 2014–2019
Applied Geophysics (ESSC4110 & EASC5110), CUHK Fall 2017
Engineering Geology and Applied Geophysics (co-taught with T-f Wong), CUHK Spring 2016
Remote Sensing: Principles and Applications (ESSC4540), CUHK Fall 2014, 2016, 2018
Research Frontiers in Earth and Atmospheric Sciences (EASC5001/5002), CUHK 2014–2018
Hydrogeology (ESSC3220, co-taught with T-f Wong), CUHK Fall 2014
Undergraduate Research Mentor, Stanford University 2012–2013
Teaching Assistant, Experimental Physics, University of Colorado 2005–2006
Teaching Assistant, Electricity and Magnetism, University of Colorado 2005–2006

Publications (Annotations: supervised graduate student, postdoc$^{\times}$, and visiting student$^{\diamond}$)

1. Chen, X., **L. Liu**, A. Bartsch (2019), Detecting soil freeze/thaw onsets in Alaska using SMAP and ASCAT data, *Remote Sensing of Environment*, 220, 59–70, doi:10.1016/j.rse.2018.10.010.
2. Huang, L., **L. Liu**, T. Zhang, and L. Jiang (2018), Automatic mapping of thermokarst landforms from remote sensing images using deep learning: A case study in the Northeastern Tibetan Plateau, *Remote Sensing*, 10(12), 2067, doi:10.3390/rs10122067.
3. Michaelides, R. J., H. A. Zebker, K. Schaefer, A. Parsekian, **L. Liu**, J. Chen, S. Natali, S. Ludwig, and S. Schaefer (2018), Inference of the impact of wildfire on permafrost and active layer thickness in a discontinuous permafrost region using the remotely sensed active layer thickness (ReSALT) algorithm, *Environmental Research Letters*, doi:10.1088/1748-9326/aaf932.
4. **Liu, L.** and K. M. Larson (2018), Decadal changes of surface elevation over permafrost area estimated using reflected GPS signals, *The Cryosphere*, 12, 477–489, doi:10.5194/tc-12-477-2018.
5. Hu, Y.$^{\diamond}$, **L. Liu**, K. M. Larson, K. M. Schaefer, J. Zhang, and Y. Yao (2018), GPS Interferometric Reflectometry reveals cyclic elevation changes in thaw and freezing seasons in a permafrost area (Barrow, Alaska), *Geophysical Research Letters*, 45, 5581–5589, doi:10.1029/2018GL077960.
6. Zhang, B.$^{\times}$, E. Zhang, **L. Liu**, S. A. Khan, T. van Dam, Y. Yao, M. Bevis, V. Helm (2018), Geodetic measurements characterize the short-term changes of glacial mass near Jakobshavn Isbræ (Greenland) from 2007 to 2017, *Earth and Planetary Science Letters*, 503, 216–226, doi:10.1016/j.epsl.2018.09.029.
7. Chen, J., **L. Liu**, T. Zhang, B. Cao, H. Lin (2018), Using Persistent Scatterer Interferometry to map and quantify permafrost thaw subsidence: a case study of Eboling Mountain on the Qinghai-Tibet Plateau, *Journal of Geophysical Research: Earth Surface*, 123, 2663–2676, doi:10.1029/2018JF004618.
8. Chen, J., Günther, F., Grosse, G., **Liu, L.**, and Lin, H. (2018), Sentinel-1 InSAR measurements of elevation changes over Yedoma uplands on Sobo-Sise Island, Lena Delta, *Remote Sensing*, 10(7), 1152, doi:10.3390/rs10071152.
9. Ran, J.$^{\times}$, Vizcaino, M., Ditmar, P., van den Broeke, M. R., Moon, T., Steger, C. R., Enderlin, E. M., Wouters, B., Noël, B., Reijmer, C. H., Klees, R., Zhong, M., **L. Liu**, and Fettweis, X. (2018) Seasonal mass variations show timing and magnitude of meltwater storage in the Greenland ice sheet, *The Cryosphere*, 12, 2981–2999, doi:10.5194/tc-12-2981-2018.
10. Schuster, P. F., K. M. Schaefer, G. R. Aiken, R. C. Antweiler, J. F. Dewild, J. D. Gryziec, A. Gusmeroli, G. Hugelius, E. Jafarov, D. P. Krabbenhoft, **L. Liu**, N. Herman-Mercer, C. Mu, D. A. Roth, T. Schaefer, R. G. Striegl, K. P. Wickland, and T. Zhang (2018), Permafrost stores a globally significant amount of mercury, *Geophysical Research Letters*, 45, 1463–1471, doi:10.1002/2017GL075571.
11. Wu, Z.$^{\diamond}$, L. Zhao, **L. Liu**, L. Tian, R. Zhu, H. Zhou, Z. Gao (2018), Surface deformation monitoring in the permafrost regions over Tibetan Plateau using Sentinel-1 data, *Sciences in Cold and Arid Regions*, 10(2), 114–125, doi:10.3724/SP.J.1226.2018.00114.
12. Jafarov E., A. D. Parsekian, K. Schaefer, **L. Liu**, A. Chen, S. Panda, T. Zhang (2018), Estimating active layer thickness and volumetric water content from ground penetrating radar measurements in Barrow, Alaska, *Geoscience Data Journal*, 4, 72–79, doi:10.1002/gdj3.49.
13. Zhang, B.$^{\times}$, **L. Liu**, S. A. Khan, T. van Dam, E. Zhang, and Y. Yao (2017), Transient variations in glacial mass near Upernavik Isstrm (west Greenland) detected by the combined use of GPS and GRACE data, *Journal of Geophysical Research: Solid Earth*, 122, 10,626–10,642, doi:10.1002/2017JB014529.
14. **Liu, L.**, S. A. Khan, T. van Dam, J. H. Y. Ma, and M. Bevis (2017), Annual variations in GPS-measured vertical displacements near Upernavik Isstrm (Greenland) and contributions from surface mass loading, *Journal of Geophysical Research: Solid Earth*, 122, 677–691, doi:10.1002/2016JB013494.
15. Wang, X.$^{\diamond}$, **L. Liu**, L. Zhao, T. Wu, Z. Li, and G. Liu (2017), Mapping and inventorying active rock glaciers in the northern Tien Shan of China using satellite SAR interferometry, *The Cryosphere*, 11, 997–1014, doi:10.5194/tc-11-997-2017.

16. Iwahana G., M. Uchida, **L. Liu**, W. Gong, F. Meyer, R. Guritz, T. Yamanoguchi, and L. Hinzman (2016), Field evidence and InSAR detection of thermokarst after a tundra wildfire, using ALOS-PALSAR, *Remote Sensing*, 8(3), 218, doi:10.3390/rs8030218.

17. Chen, A., A. Parsekian, K. Schaefer, E. Jafarov, S. Panda, **L. Liu**, T. Zhang, and H. Zebker (2016), Ground-penetrating radar-derived measurements of active-layer thickness on the landscape scale with sparse calibration at Toolik and Happy Valley, Alaska, *Geophysics*, 81(2), H1-H11, doi:0.1190/geo2015-0124.1.

18. **Liu, L.**, Schaefer, K., Chen, A., Gusmeroli, A., Zebker, H. A., and Zhang, T. (2015), Remote sensing measurements of thermokarst subsidence Using InSAR, *Journal of Geophysical Research: Earth Surface*, 120, 1935–1948, doi:10.1002/2015JF003599.

19. Jones, B. M., G. Grosse, C. D. Arp, E. Miller, **L. Liu**, D. J. Hayes, and C. F. Larsen (2015), Recent Arctic tundra fire initiates widespread thermokarst development, *Scientific Reports*, 5:15865, doi:10.1038/srep15865.

20. Schaefer, K., **L. Liu**, A. Parsekian, E. Jafarov, A. Chen, T. Zhang, A. Gusmeroli, H. A. Zebker, and T. Schaefer (2015), Remotely Sensed Active Layer Thickness (ReSALT) at Barrow, Alaska using Interferometric Synthetic Aperture Radar, *Remote Sensing*, 7, 3735–3759, doi:10.3390/rs70403735.

21. Gusmeroli, A., **L. Liu**, T. Zhang, K. Schaefer, T. Schaefer, and G. Grosse (2015), Active layer stratigraphy and organic layer thickness at a thermokarst site in Arctic Alaska identified using Ground Penetrating Radar, *Arctic Antarctic and Alpine Research*, 47(2), 195–202, doi:10.1657/AAAR00C-13-301.

22. **Liu, L.**, E. Jafarov, K. Schaefer, B. M. Jones, H. Zebker, C. Williams, J. Rogan, and T. Zhang (2014), InSAR detects increase in surface subsidence caused by an Arctic tundra fire, *Geophysical Research Letters*, 41, 3906–3913, doi:10.1002/2014GL060533.

23. **Liu, L.**, Schaefer, K., Gusmeroli, A., Grosse, G., Jones, B. M., Zhang, T., Parsekian, A. D., and Zebker, H. A (2014), Seasonal thaw settlement at drained thermokarst lake basins, Arctic Alaska, *The Cryosphere*, 8, 815–826, doi:10.5194/tc-8-815-2014.

24. Khan, S. A., K. H. Kjær, M. Bevis, J. L. Bamber, J. Wahr, K. K. Kjeldsen, A. A. Bjørk, N.J. Korsgaard, L. A. Stearns, M. R. Broeke, **L. Liu**, N. K. Larsen, I. S. Muresan (2014), Sustained mass loss of the Northeast Greenland ice sheet triggered by regional warming, ***Nature Climate Change***, 4, 292–299, doi:10.1038/nclimate2161.

25. Mu. C, T. Zhang, P. F Schuster, K. Schaefer, K. P. Wickland, D. A. Repert, **L. Liu**, and G. Cheng (2014), Carbon and geochemical properties of cryosols on the North Slope of Alaska, *Cold Regions Science and Technology*, 100, 59–67, doi:10.1016/j.coldregions.2014.01.001.

26. **Liu, L.**, C. Millar, R. Westfall, and H. Zebker (2013), Surface motion of active rock glaciers in the Sierra Nevada, California, USA: inventory and a case study using InSAR, *The Cryosphere*, 7, 1109-1119, doi:10.5194/tc-7-1109-2013.

27. Parsekian, A., G. Grosse, J. Walbrecker, M. Muller-Petke, K. Keating, **L. Liu**, B. Jones, and R. Knight (2013), Detecting unfrozen sediments below thermokarst lakes with Surface Nuclear Magnetic Resonance, *Geophysical Research Letters*, 40, 1–6, doi:10.1002/grl.50137.

28. Wahr, J., S. A. Khan, T. Van Dam, **L. Liu**, J. H. van Angelen, M. R. van den Broeke, and C. M. Meertens (2013), The use of GPS horizontals for loading studies, with applications to northern California and southeast Greenland, *Journal of Geophysical Research: Solid Earth*, 118, 1795–1806, doi:10.1002/jgrb.50104.

29. Nielsen, K., S. A. Khan, G. Spada, J. Wahr, M. Bevis, **L. Liu**, and T. Van Dam (2013), Vertical and horizontal surface displacements near Jakobshavn Isbræ driven by melt-induced and dynamic ice loss, *Journal of Geophysical Research: Solid Earth*, 118, 1837–1844, doi:10.1002/jgrb.50145.

30. **Liu, L.**, J. Wahr, I. Howat, S. A. Khan, I. Joughin, and M. Furuya (2012), Constraining ice mass loss from Jakobshavn Isbræ (Greenland) using InSAR-measured crustal uplift, *Geophysical Journal International*, 188: 994–1006, doi:10.1111/j.1365-246X.2011.05317.x.

31. **Liu, L.**, K. Schaefer, T. Zhang, and J. Wahr (2012), Estimating 1992–2000 average active layer thickness on the Alaskan North Slope from remotely sensed surface subsidence, *Journal of Geophysical Research:*

Earth Surface, 117, F01005, doi:10.1029/2011JF002041.

32. **Liu, L.**, T. Zhang, and J. Wahr (2010), InSAR measurements of surface deformation over permafrost on the North Slope of Alaska, *Journal of Geophysical Research: Earth Surface*, 115, F03023.

33. Khan, S. A., **L. Liu**, J. Wahr, I. Howat, I. Joughin, T. Van Dam, and K. Fleming (2010), GPS measurements of crustal uplift near Jakobshavn Isbræ due to glacial ice mass loss. *Journal of Geophysical Research: Solid Earth*, 115, B09405, doi:10.1029/2010JB007490.

34. Shen W., **L. Liu**, and J. Ning (2007), The inner core's super rotation and its influences on the gravity field, *Chinese Journal of Geophysics* (in Chinese), 50(2), 430–436.

Papers in Review:

35. Zhang, E., **L. Liu**, and L. Huang, Automatically delineating the calving front of Jakobshavn Isbræ from multi-temporal TerraSAR-X images: a deep learning approach, *The Cryosphere Discussions*, https://doi.org/10.5194/tc-2019-14.

36. Zhang, B.$^{\times}$, **L. Liu**, S. A. Khan, T. van Dam, A. A. Bjørk, Y. Peings, E. Zhang, M. Bevis, Y. Yao, and B. Noël, Geodetic and model data reveal different spatio-temporal patterns of transient mass changes over Greenland from 2007 to 2017, submitted to *Earth and Planetary Science Letters*.

37. Wang, S., W. Xu, C. Xu, Z. Yin, R. Bürgmann, **L. Liu**, and G. Jiang$^{\times}$, Changes in groundwater level encourage shallow earthquakes in central Australia: The 2016 Petermann Ranges earthquake, submitted to *Geophysical Research Letters*.

Papers In Preparation:

38. Jiang, G.$^{\times}$, X. Qiao, X. Wang, R Lu, T-f. Wong, **L. Liu**, H. Yang, Y. Su, L. Song, B. Wang, Ground expansion due to cyclic gas injection and extraction in the induced seismicity region of Hutubi, China

39. Zhou, Z.$^{\times}$, L. Jiang, **L. Liu**, H. Wang, T. Zhang, Rapid development of permafrost thermokarst landforms detected by repeated Unmanned Aerial Vehicle surveys in the northeastern Qinghai-Tibetan Plateau

Published Data Products (selected):

40. **Liu, L.**, K. M. Larson (2018), Surface elevation changes near Barrow (Alaska) measured using reflected GPS signals. PANGAEA, https://doi.pangaea.de/10.1594/PANGAEA.885935

41. Hu, Y., **L. Liu**, K. M. Larson (2018), The decadal reflector heights for SG27 in Barrow, Alaska (2007-2016). PANGAEA, https://doi.pangaea.de/10.1594/PANGAEA.884941

42. Zhang, B., **L. Liu**, S. A. Khan, T. van Dam, E. Zhang, and Y. Yao (2017), GPS and GRACE inferred uplifts and extracted transient and seasonal signals due to glacial mass change near Upernavik Isstrm, PANGAEA, https://doi.org/10.1594/PANGAEA.880159

43. Wang, X., **L. Liu**, L. Zhao, T. Wu, Z. Li, and G. Liu (2017), An inventory of active rock glaciers in the northern Tien Shan of China compiled using satellite SAR interferometry, PANGAEA, https://doi.pangaea.de/10.1594/PANGAEA.874616

44. Jafarov, E., A. Parsekian, K. Schaefer, **L. Liu**, A. Chen, S.K. Panda, and T. Zhang (2016), Pre-ABoVE: Active Layer Thickness and Soil Water Content, Barrow, Alaska, 2013. ORNL DAAC, Oak Ridge, Tennessee, USA. http://dx.doi.org/10.3334/ORNLDAAC/1355

45. Chen, A., A. Parsekian, K. Schaefer, E. Jafarov, S.K. Panda, **L. Liu**, T. Zhang, and H.A. Zebker. 2015. Pre-ABoVE: Ground-penetrating Radar Measurements of ALT on the Alaska North Slope. Data set. Available on-line [http://daac.ornl.gov] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. http://dx.doi.org/10.3334/ORNLDAAC/1265

46. **Liu, L.**, K. Schaefer, A. Chen, A. Gusmeroli, E. Jafarov, S. Panda, A. Parsekian, T. Schaefer, H. A. Zebker, T. Zhang. 2015. Pre-ABoVE: Remotely Sensed Active Layer Thickness, Barrow, Alaska, 2006-2011. Data set. Available on-line [http://daac.ornl.gov] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. http://dx.doi.org/10.3334/ORNLDAAC/1266

47. **Liu, L.**, K. Schaefer, A. Chen, A. Gusmeroli, E. Jafarov, S. Panda, A. Parsekian, T. Schaefer, H. A. Zebker, T. Zhang. 2015. Pre-ABoVE: Remotely Sensed Active Layer Thickness, Prudhoe Bay, Alaska, 1992-2000. Data set. Available on-line [http://daac.ornl.gov] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. http://dx.doi.org/10.3334/ORNLDAAC/1267

Other Publications (non-peer-reviewed):

48. Panda S., K. Schaefer, **L. Liu**, E. Jafarov, A. Parsekian, A. Chen, Connecting lake area change, ground subsidence and permafrost carbon dynamics in Prudhoe Bay, *Changing Ice: A Newsletter of Cryosphere Research in Alaska*, December 2015.
49. **Liu, L.** (2015) Melting Glaciers in High Asia and their Impacts on Water Sustainability, *CUHK Sustainable Campus*, No 10, October 2015.
50. Contributing author to Bartsch et al. (2014) Requirements for Monitoring of Permafrost in Polar Regions: A community white paper in response to the WMO Polar Space Task Group.
51. **Liu, L.**, C. Millar, R. Westfall, and H. Zebker (2013), Taking a Census of California Rock Glaciers from Space, *Mountain Views*, Volume 7, No 2, November 2013.
52. **Liu, L.**, (2011), Studying changes in the cryosphere using radar interferometry: permafrost surface subsidence and glacial unloading deformation, *PhD thesis*, University of Colorado.
53. **Liu, L.**, T. Zhang, K. Schaefer, and J. Wahr, InSAR Observations Revealed Surface Subsidence Over Permafrost in Northern Alaska, *Alaska Satellite Facility News and Notes*, 2011 Spring Volume.

Active Research Projects

1. GNSS-RECIPE: Global Navigation Satellite System Reflectometry Studies of Elevation Changes in Permafrost Areas (PI, Hong Kong Research Grants Council (RGC) General Research Fund) 2019–present
2. Kinematics and dynamics of active rock glaciers in western China (PI, Hong Kong RGC General Research Fund) 2018–present
3. Earth observation to investigate the characteristics and changes of the cryosphere in High Mountain Asia (Co-I, NRSCC/ESA Dragon 4 Programme) 2016–present
4. Investigation of characteristics and mechanism of earthquakes associated with the Hutubi gas reservoir (Co-I, Hong Kong NSFC/RGC Joint Research Scheme) 2016–present
5. Radar remote sensing investigations on thermokarst dynamics on the Qinghai-Tibet Plateau, China (PI, Hong Kong RGC General Research Fund) 2016–present

Completed Research Projects

1. Mass Balance of Greenland Outlet Glaciers: Non-secular Variations From Space Geodetic Measurements (PI, Hong Kong RGC Early Career Scheme Grant) 2015–2018
2. The combined use of L- and P-band radar to retrieve active layer thickness over Arctic permafrost (PI, CUHK Direct Grant for Research) 2017–2018
3. Synergistic investigations of surface deformation in permafrost areas using field and remote sensing observations (Co-PI, Hong Kong RGC Germany/Hong Kong Joint Research Scheme) 2016–2017
4. Radar Remote Sensing and Field Investigation of Permafrost Changes in Svalbard (PI, CUHK Direct Grant for Research) 2014–2015
5. Remotely-Sensed Active Layer Thickness (ReSALT) product derived from InSAR data over North American Arctic regions (Co-I, NASA Terrestrial Ecology Program) 2013–2016
6. Collaborative Research: Exploring the Dynamics of the Active Layer and Near-surface Permafrost across the North Slope of Alaska (Co-I, NSF Arctic Natural Science Program) 2012–2015

Research Students Supervised

CUHK Postgraduates

• Joseph H.Y. Ma, *Understanding temporal changes of glacial dynamics with numerical modeling: A case study of Upernavik Isstrøm, Greenland*, MPhil, 2014–16 (now PhD student at National University of Singapore)

• Xiyu Chen, *Detecting landscape freeze/thaw onsets and states using active and passive microwave remote sensing data*, PhD, 2015–19 (expected)

• Lingcao Huang, *Mapping non-lake thermokarst landforms on the Tibetan Plateau using remote sensing and deep learning*, PhD, 2016–19 (expected)

• Jie Chen, *Studying permafrost and active layer dynamics in Tibet and Arctic by multi-temporal radar interferometry*, PhD, co-supervised with Hui Lin, 2015–19 (expected)

• Enze Zhang, PhD, 2016–20 (expected)

• Yan Hu, PhD, 2017–20 (expected)

• Jiahua Zhang, PhD, 2017–20 (expected)

Postdocs: Bo Hu (2015), Zhiwei Zhou (2016–17), Bao Zhang (2017–18), Guoyan Jiang (2016–present), Jiangjun Ran (2018)

CUHK Undergraduates (25 since 2014)

Visting Students: Enze Zhang (USTC, 2015), Weiyu Zheng (USTC, 2016), Xiaowen Wang (SWJTU, 2016-17), Wanwan Shao (Lanzhou U, 2016), Zhenming Wu (CAS, 2017), Jiahui Wang (USTC, 2017), Yongxin Liu (Wuhan U, 2017), Yufeng Hu (Wuhan U, 2017–18), Weifan Zhou (Jiling U, 2018)

Stanford SURGE: Elena Baluyut (Saint Louis U), Manuel Pichardo (Utah State U), Chris Cumberbatch (Morehouse College)

University, College, and Department Services

Member, Undergraduate committee, Earth System Science Programme, CUHK	2014–present
Member, Graduate committee, Graduate Division of Earth and Atmospheric Sciences, CUHK	2014–present
Department coordinator, Chung Chi College, CUHK	2015–present
Institutional representative for CUHK, UNAVCO and WInSAR	2015–present
Member, Expert Committee of the Jockey Club Museum of Climate Change, CUHK	2019–present
Member, Search committee of assistant and associate professors, Earth System Science, CUHK	2018
Member, Review panel of Master of Science in GeoInformation Science, CUHK	2017
Member, Search committee of lecturer, Earth System Science, CUHK	2015
Library committee, Earth System Science , CUHK	2014

Professional Services

Reviewer for *Journal of Geophysical Research*, *Geophysical Research Letters*, *Remote Sensing of Environment*, *Remote Sensing*, *IEEE Transactions on Geoscience and Remote Sensing*, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *The Cryosphere*, *Soil Science Society of America Journal*, *Earth Surface Processes and Landforms*, *Scientific Reports*, *IPCC's Special Report on Ocean and Cryosphere in a Changing Climate*, US National Science Foundation, Netherlands Space Office, Hong Kong Research Grants Council, etc.

Scientific Committee Member

• 5th International Workshop on Rock Physics	2019
• The 2nd international conference of Digital Belt and Road (DBAR 2017) & The 3rd international conference on remote sensing applications in tropical and subtropical areas (RSATSA 2017)	2017
• The 3rd International Conference on Sensors and Models in Photogrammetry and Remote Sensing	2015
• The 8th World Chinese Geosciences Congress	2015

Team member

- International Permafrost Association Action Group 'Towards a Permafrost Thaw Subsidence Product within the GTN-P database' 2018
- International Permafrost Association Action Group 'Rock Glacier Inventories and Kinematics' 2018
- Vulnerability of Permafrost Carbon Research Coordination Network 2012–present

Session convener and co-chair for international meetings

- Recent Advances in SAR Technology for Earth Observation AGU Meeting 2016
- Scientific Exploration of the Earth with Multi-modal Remote Sensing: InSAR and the New Sentinel-3 Mission AGU Meeting 2015
- Advances in InSAR Data Processing for Earth System Applications AGU Meeting 2014
- Advances in Geophysical Characterization of Permafrost Systems AGU Meeting 2013

Judge for the Outstanding Student Paper Awards AGU Fall Meetings 2011–2016

Member of thesis committee

- Tanghua Li, University of Hong Kong 2018
- Xiaowen Wang, Southwest Jiaotong University 2017
- Keren Dai, Southwest Jiaotong University 2017

Outreach Activities

Exhibition on permafrost carbon feedbacks, Jockey Club Museum of Climate Change 2017–present

Discussion panelist, public screening of 'Ice and the sky' 2015

Public talk on the Arctic 2014–2017

- Hong Kong Jockey Club Museum of Climate Change
- 13th Lau Oi Wah Memorial Science Lecture Series
- CUHK Knowledge Enrichment Programme for Secondary School Students

Interview with *Radio and Television Hong Kong* on global climate change 2014

Interview with *Headline Daily* on Greenland and sea level change 2014

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