Jie Chen **Curriculum Vitae**

Fok Ying Tung Remote Sensing Science Building
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Education:

Ph.D in Earth System and Geoinformation Science, the Chinese University of Hong Kong, Hong Kong, China (Supervisors: Prof. Lin Hui and Liu Lin) 2019
M.S. in Geodesy, Tongji University, China 2013
B.S. in Geodesy, Shandong Jiaotong University, China 2009

Research interests:

Radar interferometry and tomography; SAR polarization; Inversion problems; Permafrost and active layer dynamics; Geodesy and Geophysics; Soil moisture inversion; Cryosphere

Project involved:

1. Research and development of SAR tomography based on compressed sensing (Hong Kong Innovation and Technique Fund) 2014-2015
    - Developed the persistent scatterer radar interferometry tookkit by using Matlab and C++
2. Development of Geographic-feature-based PSInSAR 3D deformation Monitoring System (Hong Kong Innovation and Technique Fund) 2015-2018
    - Integrated the persistent scatterer and distributed scatterer radar interferometry tookkit by using Matlab and C++
3. Simulation and evaluation of the interaction between human activities and global change (the National Key Basic Research Program of China) 2015-2019
    - Focused on the section of climatic warming impact on permafrost and its relevance
4. Radar remote sensing investigations on thermokarst dynamics on the Qinghai-Tibet Plateau, China (Hong Kong Research Grants Council General Research Grant) 2016-2019
    - Adapted the developed multi-temporal InSAR approaches to investigate thermokarst dynamics
5. Synergistic investigations of surface deformation in permafrost areas using field and remote sensing observations (Hong Kong Research Grants Council Germany/Hong Kong Joint Research Scheme) 2016-2017
    - Conducted the ground penetrating radar and probing data collecting in Eboling mountain
    - Developed the permafrost-tailored multi-temporal InSAR approaches by incorporating the permafrost surface processes
6. International Permafrost Association Action Group on Permafrost Subsidence 2018-2019
    - Supplied the InSAR-derived subsidence maps in Siberia

Professional and field activities:

Academic guest, ETH Zurich (five months) 2018-2019
Academic guest, Alfred Wegener Institute, Germany (half month) 2016-2017
Research Assistant, the Chinese University of Hong Kong, China 2014-2015
Field study of permafrost degradation on the Tibetan Plateau 2015-2016

Computer skills:

Python, Matlab, C/C++, bash/shell scripting, GMT, Ubuntu environment, ArcGIS/QGIS, ENVI

Publications:

1. **Chen, J.**, Liu, L., Zhang, T., Cao, B., & Lin, H. (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

2. **Chen, J.**, Günther, F., Grosse, G., Liu, L. & 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

3. **Chen, J.**, Wu, J., Zhang, L., Zou, J., Liu, G., Zhang, R., & Yu, B. (2013). Deformation trend extraction based on multi-temporal InSAR in Shanghai. Remote Sensing, 5(4), 1774-1786. doi: 10.3390/rs5041774

4. Wu, J., Zhang, L., **Chen, J.**, & Li, T. (2012). Monitoring ground subsidence in Shanghai maglev area using two kinds of SAR data. Journal of Applied Geodesy, 6(3-4), 209-213. doi: 10.1515/jag-2012-0024

Conference presentations:

1. Ma, P., Lin, H., Lan, H., **Chen, J.**, Combined use of L-band, C-band, and X-band SAR images for monitoring the dynamic process of an artificial island-the Hong Kong international airport (Poster)

2. **Chen, J.**, Liu, L., Lin, H., Zhang, T., & Cao, B. (2015). Using PSInSAR to detect thermokarst-induced surface subsidence in Eboling mountain on the Qinghai-Tibet Plateau of China. In AGU Fall Meeting Abstracts. (Oral)

3. Liu, L., Jiang L., Zhang T., **Chen J.** et al. (2016). Multi-sensor investigations of thermokarst development in Eboling Mountain, Heihe River Basin. (Oral)

4. **Chen, J.**, Liu, L., Lin, H., Zhang, T., & Cao, B. (2016). Using PSInSAR to detect thermokarst-induced subsidence in Eboling Mountain, China. in XI. International Conference on Permafrost (Poster)

5. **Chen, J.**, Günther, F., Grosse, G., Liu, L., & Lin, H. (2018). Sentinel-1 InSAR measurements of surface elevation changes over yedoma uplands on Sobo-Sise Island, Lena Delta. in 5th European Conference on Permafrost (Oral)