Guobing Zeng

Ph.D. candidate

School of Electronic and Information Engineering

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Research interests

My research interests focus on bio- and geo-physical parameters inversion using multipolarimetric multibaseline Synthetic Aperture Radar (SAR) data, including:

- Earth surface deformation, digital elevation model (DEM).
- Forest canopy height model (CHM), forest underlying digital terrain model (CHM) and aboveground biomass (AGB).
- I also developed an open source InSAR tool library using C++, which can process many spaceborne SAR datasets including Sentinel-1, TerraSAR-X/TanDEM-X, ALOS-2, etc. (Link to the library)

Education

Beijing University of Aeronautics and Astronautics, Beijing, China Septemb

September 2019 – Present

Ph.D., School of Electronic and Information Engineering

Advisor: Prof. Huaping Xu

Beijing University of Aeronautics and Astronautics, Beijing, China

September 2015 – June 2019

B.E., School of Energy and Power Engineering

Advisor: Prof. Lin Du

Selected publications

- [1] **G. Zeng**, H. Xu, Y. Wang, W. Liu, A. Liu and L. Yi. A novel method for the separation of ground and volume scattering in multibaseline polarimetric SAR data and its application in DTM and CHM inversion. (Undergoing review)
- [2] **G. Zeng**, H. Xu, W. Liu, A. Liu and Y. Wang. An MLE of Interferometric Coherence Matrix and Its Applications in Multipolarimetric Interferometric Phase Optimization and Phase Series Estimation. (In revision)
- [3] H. Xu, **G. Zeng**, W. Liu and Y. Wang. MLE-MPPL: A Maximum Likelihood Estimator for Multipolarimetric Phase Linking in MTInSAR. IEEE Transactions on Geoscience and Remote Sensing, vol. 61, pp. 1-13, 2023, Art no. 5202913. doi: 10.1109/TGRS.2023.3243220 / Code.
- [4] **G. Zeng**, B. Yang, H. Xu, C. Ren and Y. Wang. A differential SAR Tomography inversion method based on Distributed Compressive Sensing. 2021 CIE International Conference on Radar (Radar), Haikou, Hainan, China, 2021, pp. 740-744. doi: 10.1109/Radar53847.2021.10028429.