

MA Yue

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EDUCATION:

1. Wuhan University, Wuhan, P.R. China

Supervised by Prof. LI Song

Ph.D., Space Detection and Signal Processing Technology, Sep. 2008 - Dec. 2013

2. Wuhan University of Technology, Wuhan, P.R. China

B.S., Electronic Information Science and Technology, Sep. 2004 - Jun. 2008

WORK EXPERIENCE:

1. Shandong University of Science and Technology, Qingdao, P.R. China

Supervised by Prof. LU Xiushan

Post-doctoral and Lecturer, Jan. 2014 - May. 2016

2. Wuhan University, Wuhan, P.R. China

Supervised by National Academician LIU Jingnan

Post-doctoral and Lecturer, Jun. 2016 - now

3. University of New South Wales, Wuhan, Canberra, Australia

Supervised by Professor WANG Xiao Hua

Visiting Fellow, Since Dec. 2017 - now

RESEARCH GRANT: (Funded over 5,500,000 CNY)

1. **High Resolution Earth Observation System** (No. GXTC-1907001). On-orbit calibration software for China GF-7 satellite laser altimeter, 2019-2020. (2,795,000 CNY)
2. **National Science and Technology Major Project** (No. AH1601-8). High Resolution Earth Observation System. Sub-project: On-orbit geometric calibration research for China GF-7 satellite laser altimeter, 2016-2017. (1,100,000 CNY)
3. **National Science and Technology Major Project** (No. 11-Y20A12-9001-17/18). High Resolution Earth Observation System. Sub-project: Elevation retrieval using waveform parameters for China GF-7 satellite laser altimeter, 2017-2019. (700,000 CNY)
4. **National Natural Science Foundation of China** (No. 41506210). The waveform model and surface category of space-borne laser altimeter in the north waters of Greenland, 2016-2018. (232,000 CNY)
5. **Postdoctoral Science Foundation of China** (No. 20170034). Postdoctoral Fellowship under the International Postdoctoral Exchange Fellowship Program, 2017-2019. (300,000 CNY)
6. **Postdoctoral Science Foundation of China** (No. 2016M600612). On-orbit systematic error calibration based on waveform matching for a spaceborne laser altimeter, 2016-2019. (80,000 CNY)
7. **Postdoctoral Science Foundation of China** (No. 2015M572064). Sea surface wind speed retrieval from space-borne laser altimeter received pulse width, 2015-2016. (50,000 CNY)
8. **Funding from the State Key Laboratory of Geoinformation Engineering** (No. SKLGE2018-Z-3-1). On-orbit calibration algorithm for spaceborne photon-counting lidars, 2019-2020. (100,000 CNY)
9. **Fundamental Research Funds for the Central Universities** (No. 2042017kf0016, 2042019gf0010). Waveform simulation and target parameter inversion for a satellite laser altimeter observation forests

and vegetations, 2017-2019. (150,000 CNY, 50,000 CNY)

10. **Funding from the Key Laboratory of Surveying and Mapping Technology on Island and Reef, State Bureau of Surveying and Mapping, China** (No. 2014A01). Seabed sediment inversion and category using airborne lidar and image on offshore island and reef, 2015-2017. (40,000 CNY)
11. **Funding from the Key Laboratory of Satellite Mapping Technology and Application, National Administration of Surveying, Mapping and Geoinformation** (No. KLAMTA201408). Space-borne laser altimeter system pointing error evaluation and calibration, 2014-2015. (20,000 CNY)
12. **Applied research project for postdoctoral of Qingdao**. Sea surface wind speed inversion using satellite laser altimeter, 2014-2016. (50,000 CNY)

PUBLICATIONS (First author or Corresponding author)

Articles:

1. **Ma Yue**, Xu Nan*, Sun Jinyan, Wang Xiao Hua, Yang Fanlin, Li Song. Estimating water levels and volumes of lakes dated back to the 1980s using Landsat imagery and photon-counting lidar datasets, *Remote Sensing of Environment*, major revision.
2. Su Dianpeng, Yang Fanlin*, **Ma Yue***, Wang Xiao Hua, Wang Xiankun, Qi Chao. Ranging error models arising from device, environment, and target for a small laser spot airborne LiDAR bathymetry and its verification in the South China Sea, *IEEE Transactions on Geoscience and Remote Sensing*, major revision.
3. **Ma Yue**, Xu Nan*, Zhang Wenhao, Wang Xiao Hua, Sun Jinyan, Feng Xuejiao, Sun Yu, Increasing water levels of global lakes between 2003 and 2009, *IEEE Geoscience and Remote Sensing Letters*, 2019, accepted. **SCI/EI IF 2.893**
4. Li Song, Zhang Zhiyu, **Ma Yue***, Zeng Haomin, Zhao Pufan, and Wenhao Zhang. Ranging performance models based on negative-binomial (NB) distribution for photon-counting lidars, *Optics Express*, 2019, 27(12): A861-A877. doi.org/10.1364/OE.27.00A861. **SCI/EI IF 3.356**
5. Su Dianpeng, Yang Fanlin*, **Ma Yue***, Wang Xiao Hua, Wang Xiankun, Qi Chao. Ranging error models arising from device, environment, and target for a small laser spot airborne LiDAR bathymetry and its verification in the South China Sea, *IEEE Transactions on Geoscience and Remote Sensing*, 2019, 57(2): 815-828. Doi: 10.1109/TGRS.2018.2860931. **SCI/EI IF 4.662**
6. **Ma Yue**, Zhang Wenhao, Sun Jinyan, Li Guoyuan, Wang Xiao Hua, Li Song, Xu Nan*, Photon-counting lidar: an adaptive signal detection method for different land cover types in coastal areas, *Remote Sensing*, 2019, 11(4), 471. Doi: 10.3390/rs11040471 **SCI/EI IF 3.406**
7. Lu Xiushan, Feng Chengkai, **Ma Yue***, Yang Fanlin, Shi Bo, SuDianpeng. Calibration method of rotation and displacement systematic errors for ship-borne mobile surveying systems. *Survey Review*, 2019, 51(364), 78-86. Doi: 10.1080/00396265.2017.1362731. **SCI/EI IF 1.163**
8. **Ma Yue***, Liu Rui, Li Song, Zhang Wenhao, Yang Fanlin, and SuDianpeng. Detecting the ocean surface from the raw data of the MABEL photon-counting lidar, *Optics Express*, 2018, 26(19), 24752-24762. Doi: 10.1364/OE.26.024752. **SCI/EI IF 3.356**
9. **Ma Yue**, Li Song*, Zhang Wenhao, Zhang Zhiyu, Liu Rui, and Wang Xiao Hua. Theoretical ranging performance model and range walk error correction for photon-counting lidars with multiple detectors, *Optics Express*, 2018, 26(12), 15924-15934. Doi: 10.1364/OE.26.015924. **SCI/EI IF 3.356**
10. **Ma Yue**, Li Song, Wu Yu, Liu Rui, Wang Xiao Hua, Ma Xin*, Method for determining the footprint center of a satellite laser altimeter based on marked waveforms by CCRs. *Applied Optics*, 2018, 57(30), 8928-8935. Doi: 10.1364/AO.57.008928. **SCI/EI IF 1.791**
11. Li Song, Zhang Wenhao, **Ma Yue***, Wang Xiao Hua, Yang Fanlin, Su Dianpeng. Theoretical surface type classifier based on a waveform model of a satellite laser altimeter and its performance in the north of Greenland. *Applied Optics*, 2018, 57(10), 2482-2489. Doi: 10.1364/AO.57.002482. **SCI/EI IF 1.791**
12. Yang Fanlin, Su Dianpeng, **Ma Yue***, Feng Chengkai, Yang Anxiu, Wang Mingwei. Refraction correction of airborne LiDAR bathymetry based on sea surface profile and ray tracing. *IEEE*

- Transactions on Geoscience and Remote Sensing*, 2017, 55(11): 6141-6149. Doi: 10.1109/TGRS.2017.2721442. **SCI/EI IF 4.662**
13. Yang Fanlin, Bu Xianhai, **Ma Yue***, Lu Xiushan, Wang Mingwei, Shi Bo. Geometric calibration of multibeam bathymetric data using an improved sound velocity model and laser tie points for BoMMS. *Ocean Engineering*, 2017, 145: 230-236. Doi: 10.1016/j.oceaneng.2017.09.010. **SCI/EI IF 2.214**
 14. **Ma Yue**, Li Song, Zhang Wenhao, Zhang Zhiyu, Zhou Hui, Ma Xin*. Waveform width of a satellite laser altimeter illuminating on sea surface. *Applied Optics*, 2017, 56(22), 6130-6137. Doi:10.1364/AO.56.006130. **SCI/EI IF 1.791**
 15. **Ma Yue**, Zhang Wenhao, Li Song*, Cui Tingwei, Li Guoyuan, Yang Fanlin. A new wind speed retrieval method for an ocean surface using the waveform width of a laser altimeter. *Canadian Journal of Remote Sensing*, 2017, 43(4): 309-317. Doi: 10.1080/07038992.2017.1342208. **SCI/EI IF 2.000**
 16. **Ma Yue**, Li Song*, Lu Xiushan, Yi Hong, Zhou Hui, Cui Tingwei. The weight matrix determination of systematic bias calibration for a laser altimeter. *Photogrammetric Engineering & Remote Sensing*, 2016, 82(11): 847-852. Doi: 10.14358/PERS.82.11.847. **SCI/EI IF 3.150**
 17. **Ma Yue***, Wang Mingwei, Li Guoyuan, Lu Xiushan, Yang Fanlin. Waveform model of a laser altimeter for an elliptical Gaussian beam. *Applied Optics*, 2016, 55(8): 3567-3574. Doi:10.1364/AO.55.001957. **SCI/EI IF 1.791**
 18. **Ma Yue***, Wang Mingwei, Yang Fanlin, Li Song. The waveform model of laser altimeter system with flattened Gaussian laser. *Journal of the Optical Society of Korea*, 2015, 19(4): 363-370. Doi: 10.3807/JOSK.2015.19.4.363. **SCI/EI IF 0.637**
 19. **Ma Yue**, Zhang Wenhao, Li Song, Wang Hong. A rut measuring method based on laser triangulation with single camera. *Proceedings of SPIE 2013 International Conference on Optical Instruments and Technology: Optical Sensors and Applications*, 2013, Beijing. **EI**
 20. **MA Y.**, ZHANG W., et al. Sea and sea-ice waveform classification for a laser altimeter based on semi-analytic model. *Infrared and Laser Engineering*, 2017, 46: accepted. (in Chinese) **EI**
 21. **MA Y.**, LI S., et al. Received waveform model for satellite laser altimeter measuring ocean surface. *Chinese Journal of Lasers*, 2012, 39(12): 1214005 1-7. (in Chinese) **EI**
 22. **MA Y.**, LI S., et al. Noise suppression method for received waveform of satellite laser altimeter based on adaptive filter. *Infrared and Laser Engineering*, 2012, 41(12):3263-3268. (in Chinese) **EI**
 23. **MA Y.**, LI S., et al. Effect of system parameters on ranging and pulse width in ocean satellite laser altimeter system. *Optics and Precision Engineering*, 2013, 21(3): 813-820. (in Chinese) **EI**
 24. **MA Y.**, LI S., et al. Hydrostatic delay correction for satellite laser altimeter. *Infrared and Laser Engineering*, 2013, 42(4):909-914. (in Chinese) **EI**
 25. **MA Y.**, YANG F., et al. Elevation error analysis of space-borne laser altimeter for earth observation. *Infrared and Laser Engineering*, 2015, 44(3):253-258. (in Chinese) **EI**
 26. **MA Y.**, LI S., et al. The model of waveform parameters for laser altimeter system under flattened Gaussian beams. *Chinese Journal of Lasers*, 2015, 42(4):0413002-1-6. (in Chinese) **EI**
 27. **MA Y.**, YANG F., et al. Calibration method of systematic attitude error for space-borne laser altimeter of earth observation. *Infrared and Laser Engineering*, 2015, 44(8):2401-2405. (in Chinese) **EI**
 28. **MA Y.**, YANG F., et al. Analysis of elevation changing of Greenland's ice sheet using GLAS laser altimeter. *Infrared and Laser Engineering*, 2015, 44(12): 3565-3569. (in Chinese) **EI**

Awards:

1. Win the **Excellent Doctoral Dissertation of Hubei province on 2015**, 'The Data Processing and Error Analysis on Satellite Laser Altimeter'.
2. Win the **Postdoctoral Fellowship under the International Postdoctoral Exchange Fellowship Program 2017** funded by the Office of China Postdoctoral Council (120 fellowships and the only one in Survey and mapping.)
3. Win the **First Prize of Scientific and Technological Progress Award for Surveying and Mapping on 2017** (Rank 3)

Granted Patent:

1. LI S. MA Y., et al. Ocean surface wind and wave feature retrieval method based on echo of spaceborne laser altimeter. Granted year 2014, ZL201210259963.4
2. MA Y., LI S., et al. Horizontal and vertical precision validation method for a satellite laser altimeter illuminating on solid surface. Granted year 2017, ZL201410181514.1

RESEARCH INTERESTS:

Theoretical modeling and computer simulation;
Data processing, algorithm research and code programming;
Systematic bias evaluation and calibration.

Member of IEEE and OSA,

SCI Journal Reviewer: Optics Express; Applied Optics; IEEE Geoscience and Remote Sensing Letters; Estuarine, Coastal and Shelf Science; Limnology and Oceanography: Methods; Acta Astronautica; Infrared Physics & Technology; Marine Geodesy.