MA Yue

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EDUCATION:

Wuhan University, Wuhan, P.R. China
Supervised by Prof. LI Song
Ph.D., Space Detection and Signal Processing Technology, Sep. 2008 - Dec. 2013

Wuhan University of Technology, Wuhan, P.R. China
B.S., Electronic Information Science and Technology, Sep. 2004 - Jun. 2008

WORK EXPERIENCE:

Shandong University of Science and Technology, Qingdao, P.R. China
Supervised by Prof. LU Xiushan
Post-doctoral and Lecturer, Jan. 2014 - May. 2016

Wuhan University, Wuhan, P.R. China
Supervised by National Academician LIU Jingnan
Post-doctoral and Lecturer, Jun. 2016 - now

University of New South Wales, Wuhan, Canberra, Australia
Supervised by Professor WANG Xiao Hua
Visiting Fellow, Since Dec. 2017 - now

RESEARCH GRANT: (Funded over 2,700,000 CNY)

1. **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)
2. **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)
3. **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)
4. **Postdoctoral Science Foundation of China** (No. 20170034). Postdoctoral Fellowship under the International Postdoctoral Exchange Fellowship Program, 2018-2019. (300,000 CNY)
5. **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)
6. **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)
7. **Fundamental Research Funds for the Central Universities** (No. 2042017kf0016). Waveform simulation and target parameter inversion for a satellite laser altimeter observation forests and

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

8. **Supported By 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)
9. **Funded by 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)
10. **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. **(Major Revision, waiting for review)** 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***, 2018. **SCI/EI IF 4.662**
2. **Ma Yue***, Liu Rui, Li Song, Zhang Wenhao, Yang Fanlin, and Su Dianpeng. 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**
3. **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(32), published online. **SCI/EI IF 1.791**
4. Su Dianpeng, Yang Fanlin*, **Ma Yue***, Zhang Kai, Huang Jue, Wang Mingwei. Classification of coral reefs in the South China Sea by combining airborne LiDAR bathymetry bottom waveforms and topographic features, ***IEEE Transactions on Geoscience and Remote Sensing***, 2018, published online. Doi: 10.1109/TGRS.2018.2860931. **SCI/EI IF 4.662**
5. **Y. Ma**, S. Li*, W. Zhang, Z. Zhang, R. Liu, and X. H. Wang, Theoretical ranging performance model and range walk error correction for photoncounting lidars with multiple detectors. ***Optics Express***, 2018, 26(12): 15924-15934. **SCI/EI IF 3.356** Doi: /10.1364/OE.26.015924
6. S. Li, W. Zhang, **Y. Ma***, X. H. Wang, F. Yang, and D. Su. 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. **SCI/EI IF 1.791** Doi: 10.1364/AO.57.002482
7. F. Yang, X. Bu, **Y. Ma***, X. Lu, M. Wang, and B. Shi. Geometric calibration of multibeam bathymetric data using an improved sound velocity model and laser tie points for BoMMS. ***Ocean Engineering***, 2017, 145: 230-236. **SCI/EI IF 2.214** Doi: 10.1016/j.oceaneng.2017.09.010
8. X. Lu, C. Feng, **Y. Ma***, F. Yang, B. Shi, and D. Su. Calibration method of the rotation and displacement systematic errors for ship-borne mobile surveying systems. ***Survey Review***, 2017, published on-line. **SCI/EI IF 1.163** Doi: 10.1080/00396265.2017.1362731.
9. F. Yang F., D. Su, **Y. MA***, C. Feng, A. Yang, and M. Wang. 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. **SCI/EI IF 4.662** Doi: 10.1109/TGRS.2017.2721442.
10. **Y. Ma**, S. Li, W. Zhang, Z. Zhang, H. Zhou, and X. Ma. Waveform width of a satellite laser altimeter illuminating on sea surface. ***Applied Optics***, 2017, 56(22), 6130-6137. **SCI/EI IF 1.791** Doi: 10.1364/AO.56.006130
11. **Y. Ma**, W. Zhang, S. Li*, T. Cui, G. Li, and F. Yang. 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. **SCI/EI IF 2.000** Doi: 10.1080/07038992.2017.1342208
12. **Y. Ma**, S. Li*, X. Lu, H. Yi, H. Zhou, and T. Cui. The weight matrix determination of systematic bias calibration for a laser altimeter. ***Photogrammetric Engineering & Remote Sensing***, 2016, 82(11): 847-852. **SCI/EI IF 3.150** Doi: 10.14358/PERS.82.11.847

13. **Y. Ma***, M. Wang, G. Li, X. Lu, and F. Yang. Waveform model of a laser altimeter for an elliptical Gaussian beam. ***Applied Optics***, 2016, 55(8): 3567-3574. **SCI/EI IF 1.791** Doi:10.1364/AO.55.001957
14. **Y. Ma***, M. Wang, F. Yang, and S. Li, The waveform model of laser altimeter system with flattened Gaussian laser. ***Journal of the Optical Society of Korea***, 2015, 19(4): 363-370. **SCI/EI IF 0.637** Doi: 10.3807/JOSK.2015.19.4.363
15. **MA Y.**, LI S., et al. 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. **EI**
16. **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**
17. **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**
18. **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**
19. **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**
20. **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**
21. **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**
22. **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**
23. **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**
24. **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: Applied Optics, Infrared Physics & Technology, Acta Astronautica, Limnology and Oceanography: Methods.