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PhD, Mechanical Eng., Mechanical manufacturing and Automation
Xi'an Jiaotong University, China (2005)

MS, Mechanical Eng., Mechatronic Engineering
Northwestern Polytechnical University, China (1999)

BS, Mechanical Eng., Mechanical design and manufacturing
Northwestern Polytechnical University, China (1992)

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Members:

Space Mechatronics and Space Optics Specialized Committee, China
Space Science Society.

Interests:

Electro-optical Imaging and Simulation.

Telescope Opto-mechanical System.

Some research projects:

Area array imaging camera with super-resolution and high quality,

2018.

Precision deployment structure for space telescopes, 2012.

Papers

1. Zhang H, Li C, Duan Y. Modified slanted-edge method to measure the modulation transfer function of camera. *Optik-International Journal for Light and Electron Optics*, 2018, V157, 635-643.
2. Chong Y, Li C, Xia S, et al. A calibration mechanism based on worm drive for space telescope. *SPIE*, 2017, V10339.
3. Lei W, Li C, Zhong P, et al. Realization and testing of a deployable space telescope based on tape springs. *SPIE*, 2017, V10339.
4. Zong C, Zhao H, Xie X, Li C. Robust multiframe images super resolution. *SPIE*, 2017, V10462.
5. Jing N, Li C, Chong Y. Estimation of position and velocity for a low dynamic vehicle in near space using nonresolved photometric and astrometric data. *Applied optics*, 2017, V56, 671-681.
6. Jing N, Li C, Zhong P. Ground-based optical detection of low-dynamic vehicles in near-space. *Optical Engineering*, 2017, V56, 014107.
7. Jing N, Li C, Zhong P F, et al. Inversion of low dynamic vehicle shape and dimension information using non-resolved photometric data in near space. *Optics and Precision Engineering*, 2017, V25, 1738-1747.
8. Jing N, Li Chuang, Pan Y, Zhong P. Analysis of Ground-based Detection Ability of High Altitude Balloon in Near Space. *Acta Photonica Sinica*, 2016, V45.
9. Zhong P, Li C, Jing N, et al. Research on lightweight passive deployment mechanism for the secondary mirror in the deployable space telescope. *SPIE*, 2016, V9685.
10. Xie X, Zhao H, Li C, et al. Annular force based on variable curvature mirror technique. *Acta Photonica Sinica*, 2016, V45.
11. Zhao C, Li C, Zhou N, et al. Self-deployable structure designed for space telescope for microsatellite application. *SPIE*, 2016, V9685.
12. Yang W, Fan X, Wang C, et al. Design and verification of focal plane assembly thermal control system of one space-based astronomy telescope. *SPIE*, 2015, V9678.
13. Zhao H, Xie X, Wei J, et al. Annular force based variable curvature mirror aiming to realize non-moving element optical zooming. *SPIE*, 2015, V9678.
14. Jing N, Li C, Zhou N. Research on optical scattering characteristics of high altitude balloon in near space. *Acta Optica Sinica*, 2015, V35.
15. Zhou N, Li C, Gao W, et al. A secondary mirror adjustment system with hexapod structure for optical telescope application. *SPIE*, 2014, V9280.

16. Zhao C, Li C, Zhou N. A deployable telescope imaging system with coilable tensegrity structure for microsatellite application. SPIE, 2013, V8908.
17. Lu X, Li C, Fan X. Calculation of signal-to-noise ratio (SNR) of infrared detection system based on MODTRAN model. SPIE, 2013, V8907.
18. Li C, Ren G, Wang W, Fan X. Design of precision strut assembly made from carbon fiber composite. Optics and Precision Engineering, 2012, V20, 328-336.
19. Feng X, Li C, Zhao C. New measurement of the alignment of the deployable telescope. SPIE, 2012, V8417.
20. Yang W, Wang Y, Feng L, et al. Thermal management for CCD performance of one space telescope. SPIE, 2012, V8420.
21. Li C, Ren G, Wang W, et al. A precision carbon fiber hexapod for the installation of an optical telescope. Mechanic Automation and Control Engineering (MACE), 2011, 977-980.
22. Li C, Feng X. Deployment precision measurement modeling of a deployable space telescope based on tape springs. SPIE, 2011, V8321.
23. Ren G, Li C, Wang W, et al. Strain measurement aided assembly for a CFRP hexapod. SPIE, 2011, V8321.
24. Feng X, Li C, Ren G. Medium-sized aperture deployable telescope for microsatellite application. SPIE, 2011, V8196.
25. Zhang K, Fan X, Li C, et al. Design and wavefront sensing for the segmented spherical primary optical telescope. Proceedings of 2011 International Conference on Electronic and Mechanical Engineering and Information Technology, 2011, V7, 3828-3831.
26. Li C, Chen T. Simulation and optimization of chaotic micromixer using lattice Boltzmann method. Sensors and Actuators B: Chemical, 2005, V106, 871-877.

Patents

1. Shen Z, Zhang X, Li C, Chai W, Xin W. Positionable folded-axis mirror system. Chinese patent CN201710385576, 2017.
2. Shen Z, Zhang X, Li C, Chai W, Xin W. Folding axis mirror system that can fix a position. Chinese patent CN201720600004, 2017.
3. Zhao H, Zong C, Li C, Fan X. High-precision sub-pixel displacement generation method. Chinese patent CN201611024819, 2016.
4. Yang W, Fan X, Qin D, Wang Y, Wang C, Shangguan A, Wang W, Li C, Wen D. Thermoelectric device two-way temperature control technology based precision adjustable space camera focusing mechanism. Chinese patent CN201610864487, 2016.
5. Li C, Zhou N. Six-degree-of-freedom secondary mirror regulating mechanism based on stacked piezoelectric blocks. Chinese patent

CN201410810680, 2014.

6. Zhou N, Li C, Gao W, Song Z. Six freedom degree secondary mirror adjustment mechanism. Chinese patent CN201420603546, 2014.

7. Ren G, Wang W, Xie Y, Feng L, Cheng P, Chai W, Li C, Fan X. Space camera main supporting structure. Chinese patent CN201410487928, 2014.

8. Ren G, Wang W, Xie Y, Feng L, Cheng P, Li C, Fan X. Space camera secondary mirror support structure. Chinese patent CN201410487790, 2014.

9. Zhao C, Li C. Expanding type space telescope. Chinese patent CN201310181041, 2013.

10. Ren G, Song Z, Su Y, Li C, Fan X. Laminated lens focal plane box. Chinese patent CN201220617635, 2012.

11. Ren G, Li C, Wang W, Su Y, Fan X. Telescope detecting V-shaped support frame. Chinese patent CN201220617049, 2012.

12. Wang W, Li Y, Ren G, Li Y, Chai W, Yang G, Li C, Fan X. Primary mirror installing and adjusting mechanism. Chinese patent CN201210049858, 2012.

13. Wang W, Li Y, Ren G, Li Y, Chai W, Yang G, Li C, Fan X. Flexible primary mirror supporting device. Chinese patent CN201210049857, 2012.

14. Wang W, Ye J, Ren G, Chai W, He T, Feng L, Li C, Fan X. Protection device for vibration test of primary mirror. Chinese patent CN201210049517, 2012.

15. Li C, Feng L, Ren G. Apparatus for measuring mirror telescope secondary mirror six degree of freedom alignment error and method. Chinese patent CN201110433562, 2011.

16. Wang W, Yang W, Zhang Y, Du Y, Ren G, You W, Li C, Fan X. Socket capable of automatically correcting positions of contact pins. Chinese patent CN201120138266, 2011.

17. Wang W, Li C, Lin L, Yang W, Fan X. Supporting device with aluminum honeycomb interlayer and carbon fiber skin. Chinese patent CN201010521738, 2010.

18. Lin L, Wang W, He T, Xie Y, Li C, Fan X. Vibration test fixture for aerospace camera. Chinese patent CN201010522178, 2010.

19. Li C, Xu L, Fan X, Hao B, Wang W, Ren G, Ding J, Lin L. Primary structure of large-aperture long-focus collimator. Chinese patent CN201010149714, 2010.

20. Li C, Wang W, Fan X, Ren G, Xie Y. Flexible joint and flexible connecting device. Chinese patent CN201010143764, 2010.

21. Li C, Yang W, Wang W, Fan X, You W. Hygroscopic expansion-compensated length-fixed structure and telescope secondary-mirror length-fixed supporting device. Chinese patent CN201010144352, 2010.

22. Yang W, Li C, Fan X, Wang W, Wen D. Gap thermal insulation device for small space. Chinese patent CN200910311005, 2009.

23. Li C, Wang W, Fan X. Folding and unfolding light shield of optical camera.

Chinese patent CN200910022264, 2009.

24. Li C, Wang H, Wang W. Lens edge flexible support device. Chinese patent CN200920032857, 2009.

25. Wang W, Li C, Fan X. Secondary mirror supporting structure of Cassegrain system camera. Chinese patent CN200910021691, 2009.

26. Ding J, Wang W, Li C, Fan X. Unload supporting device for large caliber reflector. Chinese patent CN200920031802, 2009.

27. Wang W, Li C, Fan X. Three-point supporting device for large caliber reflector. Chinese patent CN200920031803, 2009.

28. Fan X, Li C, Li Y, Ma Z, Wang W, Zou G. Reflective optical system for collimator tube. Chinese patent CN200810188556, 2008.

29. Zhang X, Wang W, Li Y, Li C. Fine tuning apparatus for optical system. Chinese patent CN200820029776, 2008.

Supervised post graduate thesis

Supervisor of PhD Thesis

1. Nan Jing. Inversion characteristic information and motion information of low speed non-resolved targets in near space from photometric data, 2018.

Supervisor of MS Thesis

1. Xuegui Feng. Research on the measurement of alignment of the deployable telescope secondary mirror, 2012.
2. Chao Zhao. Research on self-deployable structure of secondary mirror of space telescope, 2014.
3. Xue Lu. Research on optical detection of low speed targets in near space, 2014.
4. Nan Zhou. Research on six degrees of freedom adjustment of secondary mirror in space telescopes, 2015.

5. Peifeng Zhong. Research on the deployment technology to the secondary mirror of the deployable lightweight space telescope, 2017.
6. Yaqin Chong. Study on mechanical structure of the calibration system of space optical telescope, 2018.
7. Wang Lei. The structure design of the deployable space telescope based on tape springs, 2018.