
Research progress of key measurement system for spaceborne gravitational wave detection

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The detection of gravitational waves at mHz frequency band requires an initial reference for the spaceborne drag-free control system with unprecedented residual acceleration and a laser-interferometer system that is able to detect exceptionally small spatial deviations between two reference sensors several million kilometers apart.

The report mainly introduces the research progress and follow-up planning of the key measurement system of the spaceborne gravitational wave detection mission.



Short Bio:

Zhi Wang, received his PhD degree in CIOMP, CAS. He is a professor of CIOMP, CAS, mainly engaged in the research of payloads for spaceborne gravitational wave detection, from August 2018 to August 2019, as the deputy chief designer of the key measurement system, developed China's first technical experiment satellite for spaceborne gravitational wave detection --- TAIJI-1, and verified the laser interferometry technology and inertial sensors in orbit. After TAIJI-1, the team has made significant progress in technology research on key payloads such as high-precision ultra stable laser telescope, laser interferometer, inertial sensor, and torsion pendulum.