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# Experimental Validation of Satellite Micro-jitter Management Strategy in Energy Harvesting and Vibration Isolation

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## Highlights

- This study suggested a complex system to manage the micro-jitter induced by the spaceborne cooler operation in on-orbit
- The complex system can guarantee dual strategy in both the energy harvesting and the micro-jitter isolation capability
- The harvested recycling energy from the complex system was used to measure the cooler-induced micro-jitter level without requiring external power
- The effectiveness of the proposed complex system has been evaluated through incorporating numerical simulation and experiment

## **Abstract**

Satellite on-board appendages that have mechanical moving parts induce undesirable micro-jitters during their on-orbit operations, which may seriously affect the image quality of the observation satellite. Therefore, the micro-jitter has always been treated as an isolation

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