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## **Multi-dimensional optical remote sensing technology and its application prospect**

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Optical sensing system is developing from the original intensity image/video sensing mode to multi-dimensional sensing mode, and people pay more and more attention to the fine geometric characteristics, spectral characteristics and polarization characteristics of the target. This report introduces the basic structure of multi-dimensional optical remote sensing information, and introduces the technical realization methods of our team from three aspects: image super-resolution method, spectral information acquisition and polarization information acquisition. This study combines the advantages of multi-dimensional sensing of optical load and aviation platform, proposes a target detection method based on multi-dimensional information, and introduces the aviation experiment process.



### **Short Bio:**

**Dong Yao**, Ph.D. in optical engineering, associate researcher, postgraduate tutor of Chinese Academy of Sciences, and young scholar of regional development of China Academy of Sciences. Mainly engaged in multi-dimensional target characteristics measurement, ultra-precision interference optical measurement, polarization aberration suppression and other aspects of research.