EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

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RESEARCH ON THE TECHNOLOGY OF MEASURING INNER SENSING ELEMENTS OF REMOTE SENSING CAMERA WITHOUT RADIATION CALIBRATION

Abstract

During the process of calculating inner sensing elements by using original measurement data of remote sensing camerathe measurement precision is too low without radiation calibration due to the inconsistent response of each CCD pixel. Based on the simulation analysis of the optical systemthe method of calculating inner sensing elements by using circulation iterative algorithm combined with error analysis theory has been presented in the paperthe systemic error processing of measurement data is done and the inner sensing elements are determined. The results show that the gross errors can be effectively excluded without radiation calibration by using this method so that the measurement data can be processed accurately and the accurate inner sensing elements of remote sensing camera and the distortion curve consistent with the theory can be obtained finally.