

## 环境卫星 CCD 传感器场地辐射定标与交叉定标的比较

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摘要:

利用2009年8月敦煌定标场实测光谱数据和大气参数数据, 采取反射率定标法, 获得环境卫星CCD传感器的定标系数。同时, 利用LANDSAT-5的TM影像对环境卫星CCD传感器进行交叉定标。通过对比两组定标结果, 并比较其与中国资源卫星应用中心公布的定标系数之间的差异, 验证定标系数的可靠性。结果表明, 交叉定标与场地定标的差异在10%以内, 可以作为实时替代定标的方法, 同时环境卫星CCD传感器各波段自运行以来存在3.4%-6.7%的退化。

关键词: 环境卫星; 辐射定标; 交叉定标; 6S模型

## The comparison between HJ satellite's CCD sensors field calibration and cross calibration

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**Abstract:**

A series of calibration coefficients for HJ satellite's CCD sensor was calculated by reflectance calibration method, using the spectrum measuring data and atmospheric data which were collected at the test site of DunHuang, in August, 2009. At the same time, those calibration coefficients were also gained by cross calibration method, using the Landsat-5 TM data. Comparing those two groups of results and the former calibration coefficients promulgated by China Centre for Resources Satellite Data & Application, it shows the consistency between the coefficients from the cross calibration and DunHuang field calibration varies less than 10%. Compared to the pre-launch calibration; the post-launch calibration has changed about 3.4%-6.7% in different bands of HJ satellite's CCD sensors.

**Keywords:** HJ satellite; radiometric calibration; cross calibration; 6S model

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