

# SAIP2012



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## **Effects of Slant Angle and Illumination Angle on MTF Estimations**

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### **Abstract :**

Modulation Transfer Function (MTF) is a measure of the spatial resolution of an optical imaging system. For Earth Observation (EO) imaging systems in space, continuous MTF assessment is crucial for data quality. Several techniques of measuring MTF exist and some are still in development. MTF assessment techniques include the use of slanted knife-edge targets, point source techniques that make use of convex mirrors or xenon lamps and pulse methods that use linear features such as bridges. All these techniques have been successfully used to assess the MTF of imaging systems aboard the Ikonos, Landsat and QuickBird satellites. Laboratory experiments were conducted to evaluate the effect of slant angle of the knife-edge target and the effect of light illumination angle on the MTF result. MTF results were computed using a standard method according to ISO 12233. This paper will report the results of these laboratory experiments.

### **Award :**

No

### **Paper :**

Yes

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