



Contribution ID: 193

Type: **Oral Presentation**

Phase calibration of the Shack-Hartmann wavefront sensor using a phase-only spatial light modulator

Thursday, 14 July 2011 12:00 (15 minutes)

The phase measurements of a Shack-Hartmann wavefront sensor are calibrated. The process involves creating holograms of known amounts of individual phase aberrations on a spatial light modulator and reflects an aberration free laser beam off of the modulator's liquid crystal display thereby giving the beam that aberration. The beam is then relayed onto the sensor for direct measurement. The results show that the method is accurate to the extent that the results accurately replicate the response of the wavelength calibration of the spatial light modulator.

**Level (Hons, MSc,
 PhD, other)?**

PhD

**Consider for a student
 award (Yes / No)?**

Yes

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

Primary author: Mr MAFUSIRE, Cosmas (CSIR National Laser Centre)

Co-author: Prof. FORBES, Andrew (CSIR National Laser Centre)

Presenter: Mr MAFUSIRE, Cosmas (CSIR National Laser Centre)

Session Classification: LOS

Track Classification: Track C - Lasers, Optics and Spectroscopy