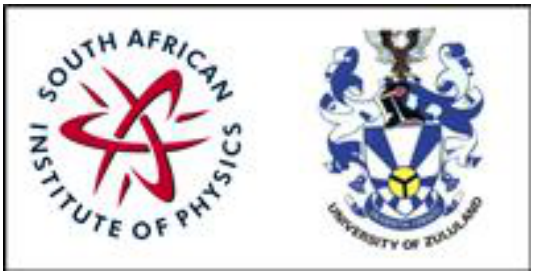

Contribution ID: **355** Type: **Oral Presentation**

The Sutherland site seeing conditions and the prospect of an AO system for SALT

Tuesday, 9 July 2013 11:50 (20 minutes)

Abstract content
   (Max 300 words)

A site monitoring campaign of the Sutherland site was initiated in 2010 to support the potential development of an adaptive optics (AO) system for the Southern African Large Telescope (SALT). As part of that campaign, continuous monitoring with the SAAO MASS-DIMM instrument provided 3 years of data so far. Two campaigns, over a shorter period of time, using instruments from collaborators at the University of Durham (U.K.) and the University of Nice Sophia Antipolis (France), provided complementary and comparative data. The Sutherland campaign with the PBL (Profileur de Bord Lunaire - "Lunar Limb Profiler" in French) instrument, from the Nice group, was also part of the instrument development and commissioning to which we participated. The PBL provides atmospheric profiles which reconstruction was calibrated using results from the MASS-DIMM. However, the PBL produces profiles with a higher vertical resolution than the MASS-DIMM. Results from the site monitoring instruments are currently used in simulations, in order to demonstrate the potential capabilities of an AO system on SALT.
In this talk I will give an overview of the seeing monitoring instruments suite used at Sutherland. Then I will present the results from the past 3 years of data together with the results from the AO simulations. Finally, I will discuss our future plans towards the feasibility and design study for such a system on SALT.

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Steven M. Crawford - crawford@saao.ac.za - South African Astronomical Observatory (SAAO-NRF)

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Primary author: Ms CATALA, laure (SAAO-UCT)

Presenter: Ms CATALA, laure (SAAO-UCT)

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