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# Aerosol measurements at the National Laser Centre, Pretoria and at the University of KwaZulu Natal, Durban using the CSIR mobile LIDAR system

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# Abstract content <br> &nbsp; (Max 300 words)

Aerosols interact both directly and indirectly with the Earth's radiation budget and climate. As a direct effect, the aerosols scatter sunlight directly back into space. As an indirect effect, aerosols in the lower atmosphere can modify the size of cloud particles, changing how the clouds reflect and absorb sunlight, thereby affecting the Earth's energy budget. In this study we present preliminary LIDAR (LIght Detection And Range) aerosol measurements performed at the Council for Scientific and Industrial Research (CSIR), Pretoria (25°53'7"S 27°42'28"E) and at the University of KwaZulu Natal (UKZN), Durban (29°49'2.04"S,30°56'38.44"E) during the South African summer season . The CSIR-National Laser Centre mobile LIDAR system to receive Mie backscattered photons was used to make these measurements using the 532nm wavelength. The vertical aerosols backscattered coefficients as well as the aerosol extinction coefficient profiles were determined and they showed different profiles.

# Apply to be<br> considered for a student <br> &nbsp; award (Yes / No)?

yes

#### Level for award<br>&nbsp;(Hons, MSc, <br> &nbsp; PhD)?

PhD

# Main supervisor (name and email)<br>and his / her institution

Venkataraman Sivakumar

# Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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