



Contribution ID: 98

Type: **Poster Presentation**

## Atmospheric turbidity over Gauteng

*Thursday, 14 July 2011 17:00 (2 hours)*

<p>We have analysed broad-band global solar irradiation measurements collected at the Soweto campus of the University of Johannesburg over the two-year period 1998-1999. We estimate the direct and diffuse irradiation using radiation models, and utilise the results to determine the atmospheric turbidity for all cloud-free days. From this we calculate aerosol densities and the solar radiation potential for the location. We further evaluate the applicability of several irradiation models, incorporating molecular absorption, Rayleigh and Mie scattering, to this part of Gauteng.

**Level (Hons, MSc, <br> &nbsp; PhD, other)?**

MSc

**Consider for a student <br> &nbsp; award (Yes / No)?**

Yes

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

Yes

**Primary author:** Mr SETHABANE, Thabang (Dept. Physics, University of Johannesburg)

**Co-author:** Prof. WINKLER, Hartmut (Dept. Physics, University of Johannesburg)

**Presenter:** Mr SETHABANE, Thabang (Dept. Physics, University of Johannesburg)

**Session Classification:** Poster2

**Track Classification:** Track D2 - Space Science