

### Contributed Talk //



**Tshepang Siteo //**  
University of Johannesburg (UJ)

**Session 8 //**

Friday, 8 September @ 12:40 SAST

We present an optical spectroscopic investigation of ~20 nearby ( $z < 0.1$ ) AGN with uncharacteristically strong, broad He I and He II emission lines. The presence of these high excitation lines indicates that the broad line region of these AGN is able to form unusually close to the black hole. Spectral data was secured from the Sloan Digital Sky Survey archives as well as the 1.9-m telescope at the South African Astronomical Observatory. Python software is used to analyse the line profiles, widths and flux to probe the geometry, kinematics and physical conditions of the gas associated with the broad line gas. We use a combination of Gaussians and Lorentzian profiles to fit various emission lines. We test whether Helium line strength correlates with other optical spectral characteristics as well as properties in other wavebands such as X-rays.

### ADDITIONAL AUTHORS

Initials	Surname	Affiliation
H.	Winkler	University of Johannesburg (UJ)