

Contributed Talk //

Active Galactic Nuclei (AGNs)



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Session 7 //

Friday, 8 September @ 10:15 SAST

Blazars emit highly polarized (nonthermal) synchrotron emission that is visible in radio through optical-UV/X-ray observations. Thermal emission from the dusty torus, broad line region, accretion disk and host galaxy is unpolarised and decreases the total polarisation degree that is observed. In some cases, the sum of the partially ordered magnetic fields along the jet can also reduce the polarisation degree towards longer wavelengths. The Large Science Program 'Observing the Transient Universe' utilizes the Southern African Large Telescope to conduct target-of-opportunity spectropolarimetry observations of γ -ray bright blazars. In some sources it is found that the total degree of polarisation decreases towards shorter or longer wavelengths. In this presentation, we summarize the polarisation degree and multi-wavelength spectral energy distribution observations and the modelling thereof in the steady states of blazars by considering one-zone (for 4C +01.02 and 3C 273), two zone (PKS 1510 - 089) and multiple-domain (3C 279) emission zone models.

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HEASA2023

Sponsored by the Department of Science and Innovation (DSI) and the National Research Foundation (NRF) through the South African Gamma-Ray Astronomy Programme (SA-GAMMA)

