

Spectropolarimetric behaviour of a selection of blazars

At optical wavelengths, the emission from blazars is a superposition of both unpolarised thermal emission, arising from the accretion disc, broad-line region, dusty torus and host galaxy itself, and the polarised non-thermal synchrotron radiation from the relativistic electrons moving in the jet. Measuring the degree of polarisation at optical wavelengths can be used to disentangle the contributions from these different components. Spectropolarimetry observations are used to observe the change in the polarisation as the blazar transitions from a quiescent state to a flaring state, i.e. as the dominant emission component shifts from thermal (unpolarised) to non-thermal (polarised). We are undertaking a long-term spectropolarimetry observation campaign of blazars, with the Southern African Large Telescope (SALT), complemented by photometric observations from the Las Cumbres Observatory (LCO), and the Fermi Large Area Telescope (LAT). We present an overview of the results from this campaign, showing the spectropolarimetry behaviour of flaring blazars.

Primary author: BARNARD, Joleen (The University of the Free State)

Co-authors: Dr VAN SOELEN, Brian (University of the Free State); Dr MARTIN-CARRILLO, Antonio (University College Dublin); Mr COOPER, Justin (University of the Free State); Prof. BÖTTCHER, Markus (Centre for Space Research, North-West University, South Africa); Dr BRITTO, Richard (University of the Free State); Dr BUCKLEY, David (South African Astronomical Observatory); Mr MARAIS, Johannes P (University of the Free State); SCHUTTE, Hester M (Centre for Space Research)

Presenter: BARNARD, Joleen (The University of the Free State)

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