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## The multi-wavelength behaviour of PSR B1259-63 during the 2021 periastron passage

Gamma-ray binaries are a rare class of high mass binary system (less than 10 sources) that emit most of their non-thermal emission in the gamma-ray regime. The gamma-ray binary PSR B1259-63/LS 2883 consists of a young pulsar in a 3.4 year orbit around a Be star. Observations around previous periastron passages have shown increased non-thermal emission associated with the pulsar crossing the Be star's circumstellar disc, as well as flares at gamma-ray energies around inferior conjunction, which exceed the pulsar's spin-down luminosity. We undertook an extensive multi-wavelength campaign to observe the source at radio (ATCA), optical (SALT), X-ray (Swift) and gamma-ray (Fermi-LAT) energies during the most recent periastron passage in February 2021. We present the first results from this observational campaign and discuss their possible implications.

## Apply to be considered for a student ; award (Yes / No)?

No

## Level for award;(Hons, MSc, PhD, N/A)?

N/A

**Primary authors:** VAN SOELEN, Brian (University of the Free State); Prof. CHERNYAKOVA, Maria (Dublin City University); Dr MALYSHEV, Denys (Universität Tübingen); Mr MC KEAGUE, Samual (Dublin City University); Dr MONAGENG, itumeleng (University of Cape Town); Dr SOBEY, Charlotte (CSIRO); Dr O'SULLIVAN, Shane (Dublin City University)

**Presenter:** VAN SOELEN, Brian (University of the Free State)

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