

Contributed Talk //



Laenita De Jonge //
North-West University (NWU)

Session 9 //

Friday, 8 September @ 14:30 SAST

Orphan flares are events where flaring takes place in one frequency unaccompanied by flaring in other bands. Orphan flares are usually secondary flares. We study a very-high-energy orphan flare taking place in 3C279, an FSRQtype blazar. A primary flare was observed 11 days earlier by Fermi-LAT. In a model presented at previous HEASA conferences, the Fermi-LAT spectrum during the primary flare is interpreted as proton synchrotron radiation, constraining the parameters of the relativistic proton population in the jet. The delayed, very-highenergy orphan flare is modelled as photo-pion induced cascade emission in the hadronic synchrotron mirror model, which produces a negligible enhancement of the Fermi-LAT flux. As the model results presented earlier required superEddington jet powers, this presentation explores a parameter study to explore whether parameter combinations with sub-Eddington power requirements may be found.

ADDITIONAL AUTHORS

Initials	Surname	Affiliation
M.	Böttcher	North-West University (NWU)