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Gamma-ray detection consistent with a young stellar object

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Jets from protostellar have recently been reported to have the capability to accelerate particles to relativistic energy, emitting gamma photons that can be detected by the Fermi-LAT. Some protostellars have also been reported to have observed non-thermal jet lobes in radio band, confirming the presence of non-thermal processes within the jets. We analyzed the 16 years of Fermi-LAT data surrounding RAFGL 490, a protostellar object relatively close to the Earth with non-thermal jets. We have detected an excess of gamma radiation near this protostellar, and discussed the possible origin of the gamma ray emission.

Collaboration you are representing

Author: TANG, Shen (Sun Yat-sen University)

Co-author: TAM, P. H. Thomas (Sun Yat-sen University)

Presenter: TAM, P. H. Thomas (Sun Yat-sen University)

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