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Modelling of non-thermal radiation from pulsar wind nebulae

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Abstract content
 (Max 300 words)

Electrons and positrons escape from the pulsar in the form of a relativistic wind. These particles undergo synchrotron radiation as well inverse Compton collisions with photons from the Cosmic Microwave Background Radiation, leading to measurable non-thermal emission. The purpose of this project is to test a first order approximation model that calculates changes in the lepton spectrum due to the radiation processes, as well as the subsequent non-thermal emission. The model makes use of several parameters which we vary in an attempt to fit a observed photon spectrum from a source with known parameters. We find the model to have a moderate success as a first order approximation and apply it to a number of unknown sources.

Apply to be
 consider for a student
 award (Yes / No)?

Yes

Level for award
%nbsp;(Hons, MSc,
 PhD)?

Hons

Main supervisor (name and email)
and his / her institution

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Would you like to
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Yes

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