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Type: **Oral Presentation**

## Modelling of non-thermal radiation from pulsar wind nebulae

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### Abstract content <br> &nbsp; (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<br> consider for a student <br> &nbsp; award (Yes / No)?

Yes

### Level for award<br>&nbsp;(Hons, MSc, <br> &nbsp; PhD)?

Hons

### Main supervisor (name and email)<br>and his / her institution

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### Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

Yes

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**Track Classification:** Track D1 - Astrophysics