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## **Gamma ray emission from PWN interacting with molecular clouds**

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### **Abstract content**

In this work we consider the situation in which the pulsar (and its nebula) is formed inside or close to the high density regions of a molecular cloud. Recent models for the gamma radiation of pulsar wind nebula try to include not only radiation processes due to the injected leptons but also processes due to injection of relativistic hadrons into the nebula. Hadrons accelerated during the lifetime of a pulsar can be partially captured in dense ( $10^3$ - $10^5$  cm<sup>3</sup>), magnetized ( $10^{-5}$  -  $10^{-3}$  G) molecular clouds, producing gamma-rays for a relatively long time. We compare the theoretical predictions with PWN candidates observed by MAGIC and HESS in VHE gamma-rays.

**If this papers is presented for a collaboration, please specify the collaboration**

### **Summary**

### **Reference**

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 2 (OG part 1), pages 551-554

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