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# A Search for Prompt and Delayed VHE Emission from Gamma-Ray Bursts

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## Abstract content

Gamma-ray bursts (GRBs) have been detected up to GeV energies and are predicted by many models to emit in the very high energy (VHE, >100 GeV) regime too. Detection of such emission would allow us to constrain GRB models. Since its launch, in late 2004, the Swift satellite has been locating GRBs at a rate of approximately 100 per year. The rapid localization and follow-up in many wavelengths has revealed new and unexpected phenomena, such as delayed emission in the form of bright X-ray flares. The first survey of X-ray flares from GRBs observed by Swift shows that almost a third of these bursts show significant flaring activity. The Milagro gamma-ray observatory is a wide field of view (2 sr) instrument employing a water Cherenkov detector to continuously (> 90% duty cycle) observe the overhead sky in the 100 GeV to 100 TeV energy range. Over 100 GRBs have been in the field of view of Milagro since January 2000, including approximately 50 in the last two years. I will discuss the results of our searches for prompt emission from these bursts, as well as for delayed emission from the X-ray flares observed in the Swift bursts.

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

Milagro 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. 3 (OG part 2), pages 1187-1190

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