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## Detecting GRBs and SNe with IceCube and follow-up observations

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### Abstract content

We present a summary of AMANDA results obtained in searches for neutrinos from Gamma-Ray Bursts (GRBs). Using simulations, we show how the IceCube detector, which is currently being constructed at the South Pole, will improve the sensitivity of the search. In order to improve the prospects for detections of gamma-ray dark bursts, as well as core collapse Supernovae (SNe), we discuss a novel follow-up scheme of high energy neutrino events from IceCube. Triggered by neutrinos events from IceCube, a network of small optical telescopes is meant to monitor the sky for SNe rising lightcurves and GRB afterglows. The observing program is outlined and its status discussed. Using a realistic configuration of optical telescopes, we estimate the achievable gain in sensitivity of IceCube for detections of neutrinos from GRBs and SNe.

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

IceCube

### 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 1171-1174

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