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Prospects for the detection of Gamma Ray Bursts with HAWC

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Gamma Ray Bursts (GRBs) are among the most powerful events in the Universe. They have been observed from radio to GeV energies. In the past few years Fermi LAT has shown that GRBs are able to produce photons up to 30 GeV (approx. 90 GeV corrected for redshift for GRB 090902B). It is unknown up to what energy the spectrum extends. Studying the spectrum beyond 10 GeV, is of interest in understanding GRBs themselves, it allows us to probe the extragalactic background light (EBL) and it may be used to constrain Lorentz invariance violation. In this presentation I will show that the GRB detection rate by the extended air shower array detector HAWC, may be as high as 2 GRBs per year, assuming that the spectrum is only cutoff by EBL attenuation.

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