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Short Gamma Ray flares from cosmic string wakes.

There are several observed Gamma Ray flares which are of short duration which cannot be explained by the conventional models of black holes, active galactic nuclei and neutron stars. Some of these also correspond to high redshift values. The nature of the bursts indicate an extremely compact emission region typically associated with magnetic reconnections. We conjecture that these magnetic reconnections could have occurred in the magnetized wakes of cosmic strings. We show that the narrow width of the cosmic string wake would result in fast reconnection of the misaligned fields produced due to the Biermann mechanism. Such fast reconnections would give rise to short Gamma ray flares in the cosmic string wakes.

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