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Searching for gravitational wave fingerprints of SGR QPOs RUBAB KHAN — Soft Gamma Repeaters are young neutron stars or supernova remnants with very strong magnetic fields that irregularly emit X-ray and gammaray bursts, and occasionally produce huge burst flares. Quasi periodic oscillations (QPOs) in the X-ray tail of such flares have been observed during the August 1998 giant flare from SGR 1900+14 and the Dec 2004 giant flare from SGR 1806-20. These QPOs can plausibly be accompanied by gravitational wave emission up to the energy scale of the electromagnetic emission. The search algorithm used for the analysis relies on coincident data streams from multiple interferometric gravitational wave detectors and incorporates the temporal and directional information available from detected SGR flares.

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