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INTEGRAL observation of GW gamma ray counterparts and future perspectives: searching for Fermi/GBM un-triggered SGRB Candidates with INTEGRAL/PICsIT

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The first detection of the prompt electromagnetic counterpart coincident with a GW170817 has been a forward step in our knowledge of NS-NS merging.

An unexpected result was the extremely low isotropic luminosity of the event relative to other short gamma-ray bursts (SGRBs) with known redshifts, revealing a population of low luminosity SGRBs. The most popular interpretation has been that GRB 170817A was viewed off-axis, rather than that the event had an intrinsically low luminosity. In either case, this result has spurred off-line searches for SGRBs below instrument trigger thresholds in hopes of finding similar events.

We will present a data set from the INTEGRAL soft gamma-ray detector IBIS/PICsIT (~200 keV - 10 MeV) to corroborate the list of publicly available un-triggered SGRB candidates reported by Fermi/GBM.

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