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SUBJECT: LIGO/VIRGO S200213t: upper limits from AGILE/MCAL observations
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F. Longo (Univ. Trieste, and INFN Trieste), C. Casentini, G. Piano (INAF/IAPS), M. Tavani (INAF/IAPS, and Univ. Roma Tor Vergata), M. Cardillo, A. Ursi (INAF/IAPS), F. Lucarelli, C. Pittori, F. Verrecchia (SSDC, and INAF/OAR), A. Bulgarelli, V. Fioretti, N. Parmiggiani (INAF/OAS-Bologna), M. Pilia (INAF/OA-Cagliari), report on behalf of the AGILE Team:

In response to the LIGO/Virgo GW event S200213t at T0 = 2020-02-13 04:10:40.238 (UTC), a preliminary analysis of the AGILE mini calorimeter (MCAL) triggered data found no event candidates within a time interval covering -/+ 15 sec from the LIGO/Virgo T0.

At the T0, about 96% of the S200213t 90 % c.l. localization region was accessible to the AGILE MCAL. Three-sigma upper limits (ULs) are obtained for a 1 s integration time at different celestial positions within the accessible S200213t localization region, from a minimum of 1.6E-06 erg cm⁻² to a maximum of 7.5 E-06 erg cm⁻² (assuming as spectral model a single power law with photon index 1.5).

The AGILE-MCAL detector is a CsI detector with a 4 pi FoV, sensitive in the energy range 0.4-100 MeV. Additional analysis of AGILE data is in progress.