



<b>Publication Year</b>	2019
<b>Acceptance in OA</b>	2024-03-07T10:37:03Z
<b>Title</b>	LIGO/Virgo S190519bj: AGILE MCAL observations
<b>Authors</b>	LUCARELLI, Fabrizio, Cardillo, M., Tavani, M., Casentini, C., PIANO, Giovanni, Ursi, A., PITTORI, Carlotta, VERRECCHIA, Francesco, BULGARELLI, ANDREA, FIORETTI, VALENTINA, PARMIGGIANI, NICOLO, PILIA, Maura, Longo, F.
<b>Handle</b>	<a href="http://hdl.handle.net/20.500.12386/34919">http://hdl.handle.net/20.500.12386/34919</a>
<b>Journal</b>	GRB Coordinates Network
<b>Volume</b>	24603

TITLE: GCN CIRCULAR  
NUMBER: 24603  
SUBJECT: LIGO/Virgo S190519bj: AGILE MCAL observations  
DATE: 19/05/19 18:17:18 GMT  
FROM: Fabrizio Lucarelli at SSDC/INAF-OAR <fabrizio.lucarelli@ssdc.asi.it>

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

In response to the LIGO-Virgo GW event S190519bj at T0 = 2019-05-19 15:35:44 (UT), a preliminary analysis of the AGILE minicalorimeter (MCAL) triggered data found no event candidates within a time interval covering +/- 100 sec from the LIGO-Virgo T0.

Three-sigma upper limits (ULs) are obtained for a 1 s integration time at different celestial positions within the accessible S190519bj 90% c.l. localization region (almost 70% of the given GW contour), from a minimum of  $1.16\text{E-}06$  erg  $\text{cm}^{-2}$  to a maximum of  $1.90\text{E-}06$  erg  $\text{cm}^{-2}$  (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.