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Multimessenger searches with AMON

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The Astrophysical Multimessenger Observatory Network (AMON) aims to connect the world's leading high-energy and multimessenger observatories. AMON looks to evoke the discovery of new multimessenger phenomena, exploit these phenomena as tools for fundamental physics and astrophysics, and explore for multimessenger activity in archival datasets. Here we present a summary of the current activities of AMON and the future plans: AMON is currently distributing low-latency multimessenger alerts from the Neutrino-Electromagnetic (NuEM) channel, and helping in the propagation of trigger alerts from observatories such as IceCube and HAWC. AMON will also continue providing useful real-time analyses of a wide variety of high-energy and multimessenger data streams including gravitational waves from the O4 run from the LIGO-Virgo-Kagra collaboration; strengthening its ties with the theoretical and time domain astrophysics communities; and looking for new analysis methods to perform Multimessenger searches such as machine learning.

Submitted on behalf of a Collaboration?

Yes

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