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An online follow-up system for gravitational waves in Super-Kamiokande

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Super-Kamiokande is a 50-kton Cherenkov water detector currently operating in Japan, primarily aimed at the study and detection of neutrinos. Many efforts are being made to detect neutrinos from astrophysical origin, especially in the context of multi-messenger astronomy. In this contribution, the development of an online follow-up system for gravitational waves detected during the current LIGO/Virgo/KAGRA O4 Run will be described. This system allows to do a realtime search of neutrino signals in temporal coincidence with gravitational waves events in an energy range that goes from few MeVs to hundreds of GeV.

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