

## Multimessenger Astronomy Beyond the Standard Model and Quantum Sensing (Q-EYES 2025)



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### Super-Kamiokande Supernova monitoring: a trigger for multi-messenger analysis

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Since SN1987A, we know that supernovae (SNs) produce burst of neutrinos which can be detected several minutes to hours before the electromagnetic burst. Detecting this neutrino burst would provide valuable information on the supernova explosion mechanism and allow to give an early warning of the imminent electromagnetic burst arrival to the astronomer community. The Super-Kamiokande experiment, with its 50 ktons water Cerenkov detector, is one of the main neutrino detector able to provide this warning. In this presentation, we will present the last status and improvements of the Super-Kamiokande's supernova monitoring system, as well as our partnerships with telescopes to ensure the followup of our alerts.

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