

# KM3NeT Core Collapse Supernovae observation program in standalone and multi-messenger modes

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This poster reports on the expected KM3NeT sensitivity to the next Galactic or nearby core collapse supernova explosion. It is shown that once finalised, the KM3NeT detectors will be sensitive to more than 95% of the Galactic supernova progenitors even for the pessimistic emission models. The KM3NeT capability to determine the burst time of arrival and of detecting the signature of the standing accretion shock stability is presented as well as the prospects for measuring the neutrino spectrum. Details on the KM3NeT integration to the multi-messenger networks SNEWS2.0 and GCN as well as the performance of the currently operating KM3NeT detector configuration are presented. The KM3NeT followup of the gravitational wave alert S200114f that could indicate Galactic supernova is briefly discussed.