

# Stacking Search for Ultra-Luminous Infrared Galaxies with KM3NeT/ARCA Detector

*martedì 18 giugno 2024 17:30 (2 ore)*

On behalf of the KM3NeT Collaboration

KM3NeT/ARCA is a Cherenkov neutrino telescope currently under construction in the Mediterranean Sea, at 100 km off the Sicilian coast, near Capo Passero, and at about 3500 m depth. On its final configuration, the detector will instrument a cubic kilometer volume of seawater. At the present moment, 28 detector units have been already deployed. In this contribution, we analyze a catalogue of 75 Ultra-Luminous Infrared Galaxies (ULIRGs) as potential neutrino emitters, in light of the latest experiment data. In particular, we not only perform a single source search along the catalogue but also conduct a binned likelihood stacking search. We present the 90% sensitivity on their emissions, also extrapolating these limits to the entire source population.

## Poster prize

Yes

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**Classifica Sessioni:** Poster session and reception 1

**Classificazione della track:** Astrophysical neutrinos