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Combined KM3NeT-ARCA and ANTARES searches for point-like neutrino emission

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Neutrino telescopes are the instruments for the detection of high energy cosmic neutrinos. The ANTARES detector operated offshore Toulon (France) for 16 years until 2022, while KM3NeT-ARCA infrastructure is under construction in Southern Italy.

The ANTARES telescope was composed of 12 strings, each equipped with 75 optical modules. Each optical module contained one 10"photomultiplier tube to detect the faint light produced by neutrinos interacting in the surrounding water. Similarly, the KM3NeT-ARCA detector will count 230 strings of 18 optical modules, each containing 31 3"photomultipliers.

In recent years, there has been a growing interest in studying potential sources of neutrinos, as these sources can provide valuable information about the most extreme phenomena in the Universe. This contribution will showcase the analysis of the combined data sample from ANTARES and the first two years of KM3NeT-ARCA to detect high energy cosmic neutrinos from point-like sources.

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