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## Submission accepted

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### Submission report

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Thank you for your paper submission to JCAP. Your preprint has been received and the editorial procedure has now started. The registered data are:

**Preprint id:** JCAP\_027P\_0507

**Title:** Large underground, liquid based detectors for astro-particle physics in Europe: scientific case and prospects

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**Abstract:** This document reports on a series of experimental and theoretical studies conducted to assess the astro-particle physics potential of three future large-scale particle detectors proposed in Europe as next generation underground observatories. The proposed apparatus employ three different and, to some extent, complementary detection techniques: GLACIER (liquid Argon TPC), LENA (liquid scintillator) and MEMPHYS (WC), based on the use of large mass of liquids as active detection media. The results of these studies are presented along with a critical discussion of the performance attainable by the three proposed approaches coupled to existing or planned underground laboratories, in relation to open and outstanding physics issues such as the search for matter instability, the detection of astrophysical- and geo-neutrinos and to the possible use of these detectors in future high-intensity neutrino beams.

**Key words:** neutrino detectors, neutrino properties, solar and atmospheric neutrinos, supernova neutrinos,

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### Next step

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