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Borehole Muon Telescope for Underground Muography

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Muon radiography applies to different situations and is
particularly suitable for subsoil imaging. The methodology can be used in order to carry out civil and archaeological investigations. This kind of applications need the muon telescope to be installed below the region to be investigated. The shape and size of such a muon detector have to reflect this necessity.
A novel borehole cylindrical detector has been realized and tested to be used in harsh conditions and installed in tight spaces. It is built with two types of scintillators of different geometry, in the shapes of bar and arc. The size was chosen to fit inside holes greater than 25 cm in diameter, typically realized at standard costs. The commissioning of the detector and preliminary test results will be shown."

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