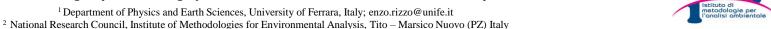


Geophysical measurements in an abandoned old railway tunnel located in a karst area



Enzo Rizzo¹², Luigi Capozzoli², Gregory De Martino², Giacomo Fornasari¹², Valeria Giampaolo²

¹ Department of Physics and Earth Sciences, University of Ferrara, Italy; enzo.rizzo@unife.it





An old railway tunnel in a karst area

The purpose of this work is to introduce a new project aimed to study the karst area by geophysical measurements with the sensors installed on the topographic surface and inside an old railway tunnel. The test site is located in the Castel di Lepre karst system, which is disposed in the Mezo-Cenozoic carbonate substratum of the Monti della Maddalena ridge (Southern Appenines). Several caves are located in the karst area, but the presence of an artificial tunnel (disused railway tunnel) could give the opportunity to characterize the karstic area and the fluid circulation by multisensors geophysical sensors installed inside the karst aquifer. This natural laboratory permits to define a strategy developing several main topics from an engineering to hydrogeological point of view.







