

Muon radiography with nuclear emulsion in Italian laboratories

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The continuous improvement in the automation of scanning systems in the last decades has produced an impressive revival of the nuclear emulsion technique, thus allowing their large scale application in particle physics experiments. The portability of such a detector together with the fact that they are not electrically-powered makes it suitable for the muon radiography on volcanoes. We present the application of such a detector to the study of the Unzen and Stromboli volcanoes. For the Unzen volcano we have started the analysis of emulsion films exposed in Japan and we will report preliminary results of their analysis in Italian laboratories. For the Stromboli we present the design of the emulsion detector and its plan for the ongoing installation, expected to be completed in October this year.