

Muon radiography of the Puy de Dôme: status and prospects.

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Abstract:

We report the preliminary results of the muon radiographic measurement campaign at the flank of the Mt. Puy de Dôme, a large lava dome and one of the youngest volcano in the region of Massif Central in south-central France. The measurement campaign was performed in the frame of a collaboration between the MU-RAY and TOMUVOL collaborations.

Mu-Ray (MUon RadiographY) was an INFN R&D program devoted to the development of an innovative detector, based on modern solid state technologies, for muon radiography. The MU-RAY detector was transported to the Puy de Dôme and installed at the Col de Ceissat location at 1078 m of altitude. The data taking started at the end of June 2013 and 115 days of statistic were accumulated. In the talk we report the detector performances during the data taking and the preliminary results, in particular concerning the background.