



LNGS SEMINARS

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High-resolution Muon Computerized Tomography at Neutrino Beam Facilities

Abstract

X-ray computed tomographies (CT) have immense applications in our modern world. However, traditional CTs are limited to less dense objects which X-rays can penetrate. For scanning denser objects muons have been proposed.

However cosmic muons are random in nature and the energy is widespread, leading to poor resolution. To form tomographic images with high-resolution, high-intensity monochromatic muon beams should be used. And muons produced as by-products of accelerator neutrino beams meet both the energy and flux requirement. The potential maximum resolution, the limiting factors and the possible applications are discussed.

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