

## High energy particle imaging of the solid earth

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Researchers have developed a technique of muon radiography since 1955 for searching a hidden chamber inside an Egyptian pyramid and natural resources. In 1980s, neutrino radiography was suggested for searching natural resources with a larger scale, but the capital and running was estimated to be astronomical, hence, unrealistic. In this lecture, I will review the result of muon radiography of volcanoes in 2006-10, and the development of neutrino radiography with a novel particle detector in Antarctica.

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