

# Measurement of cosmic muon flux and cosmogenic neutron production at CJPL

*Friday 19 July 2024 20:40 (20 minutes)*

China JinPing Underground Laboratory (CJPL) is an underground laboratory with 2800 meters rock overburden and is ideal to carry out experiment for rare-event searches. Cosmic muons and muon-induced neutrons present an irreducible background to neutrino experiment and dark matter experiment at CJPL. A precise measurement of the cosmic-ray background of CJPL would play an important role in the future experiments. Using a 1-ton liquid scintillator detector for the Jinping Neutrino Experiment(JNE), we give a measurement of cosmic muon flux and cosmogenic neutron production in liquid scintillator detector at CJPL. This study provides a clear understanding of cosmic-ray background at deep underground laboratory.

## Alternate track

### I read the instructions above

Yes

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**Session Classification:** Poster Session 2

**Track Classification:** 02. Neutrino Physics