

## Calculated spectrum of muon-induced cascades at great depths of water or ice

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Modern existing and being developed Cherenkov water detectors for neutrino astrophysics have a cubic-kilometers volume. These detectors are deployed at great depths of water or ice and, in addition to neutrinos, register atmospheric muons with a high energy threshold (hundreds GeV). The energy spectrum of muons with energies above 100 TeV is extremely poorly studied. Knowing the spectrum will allow testing the models of hadron interaction and to resolve some disputed issues of cosmic ray physics. One of the best ways for investigations of muon spectrum is measuring the spectrum of stochastic energy losses (cascades, originating mainly due to muon bremsstrahlung). The results of calculations of cascade spectrum at a great depths of water or ice are discussed.

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