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Experimental results on the atmospheric muon charge ratio

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The atmospheric muon charge ratio, defined as the number of positive over negative charged muons, is a highly informative observable both for cosmic rays and particle physics. It allows studying the features of high-energy hadronic interactions in the forward region and the composition of primary cosmic rays.
We present a review of results from underground experiments measuring the charge ratio above 1 TeV.
The measurements in the TeV energy region constrain the associated kaon production, which is particularly important for the calculation of the atmospheric neutrino flux.

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