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Title:	Flux Estimation of Cosmic Ray Muons at a Particular Latitude and Longitude
Authors:	Moharana, Asish (/jspui/browse?type=author&value=Moharana%2C+Asish)
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Abstract:	Cosmic Ray Physics deals with the fundamental question like, 'what are the sources of the high energy radiations?' and 'How are they accelerated to such high energies?'. For answering such questions, we need to learn about Cosmic ray particles and their interactions. Muons and Neutrinos are the only particles that are able to reach the sea level from the vast majority of particles that originate through the interactions of primary cosmic rays at the top of the atmosphere. As a consequence, the study of muons cover many aspects of cosmic ray physics. And since neutrinos are very hard to detect, muons become the most suitable candidates to study about cosmic rays. As muon and neutrino production are closely related, it follows that the evaluation of the atmospheric muon flux can provide an important cross check on the atmospheric neutrino flux. Moreover, muon flux measurements at different geomagnetic latitudes are crucial for the normalization of the calculated neutrino flux. In this work we are looking at the flux of Cosmic Ray Muons at 30.7046 ° N, 76.7179 ° E with the help of Monte Carlo Simulations.
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