

Subject: Re: Large momenta from BOX generator
Posted by [AndreiSemenov](#) on Mon, 23 Nov 2020 18:14:42 GMT
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Hello,
Positions for particles with large momenta have relatively larger coordinates. Do not know how to draw them in a representative way.
I studied P3Cov() method of RhoCandidate that gives 3x3 covariance matrix of momentum vector. Estimating the std.dev. as square root of the sum of diagonal elements, it correlates with large momenta. The plot for correlation of this std.dev. and actual error for momentum of 5 GeV muon is attached, X is actual error and Y is std.dev. Most events have std.dev. 0.2 and actual error up to 0.5 GeV, but there are several events with std.dev. 0.2 and actual error 3 - 4 GeV, near 100% of actual value. Are there some ways of rejecting events with badly measured momenta?

File Attachments

1) [errors.jpeg](#), downloaded 1935 times

