Updates on Nov 9 2022

(Horn focus effect and Magnetic field in decay pipe)



Beam sim meeting Nov 09, 2022

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Horn focus effect



- Z-tuple simulation: A virtual detector after the target
 - Particle ID
 - Momentum
 - Position
 - Importance weights



MM2



MM3



Magnetic field in decay pipe

Magnetic field in decay pipe measurement

Bx = 0.1 Gauss, By = -0.3 Gauss, Bz = -0.07 Gauss





Data vs simulation

simulation

N -	0.174	0.313	0.471	0.566	0.587	0.552	0.448	0.291	0.16		- 0.2
0 -	0.254	0.467	0.704	0.843	0.866	0.82	0.678	0.44	0.233		
- CJ	0.316	0.56	0.814	0.949	0.967	0.916	0.772	0.524	0.287		- 0.4
4 -	0.336	0.588	0.845	0.981	1	0.95	0.803	0.551	0.308		
m -	0.317	0.565	0.82	0.962	0.983	0.931	0.782	0.531	0.29		- 0.6
N -	0.258	0.477	0.718	0.86	0.886	0.833	0.694	0.45	0.237		
-H -	0.178	0.319	0.484	0.583	0.605	0.566	0.459	0.3	0.163		- 0.8
0 -	0.107	0.176	0.254	0.31	0.326	0.3	0.239	0.165	0.0999		1.0
pixels (mm1)											-10





Bx = 0.1 Gauss, By = -0.3 Gauss, Bz = -0.07 Gauss

Simulation

RHC/FHC



Data

RHC/FHC

