

NuFact11 Results

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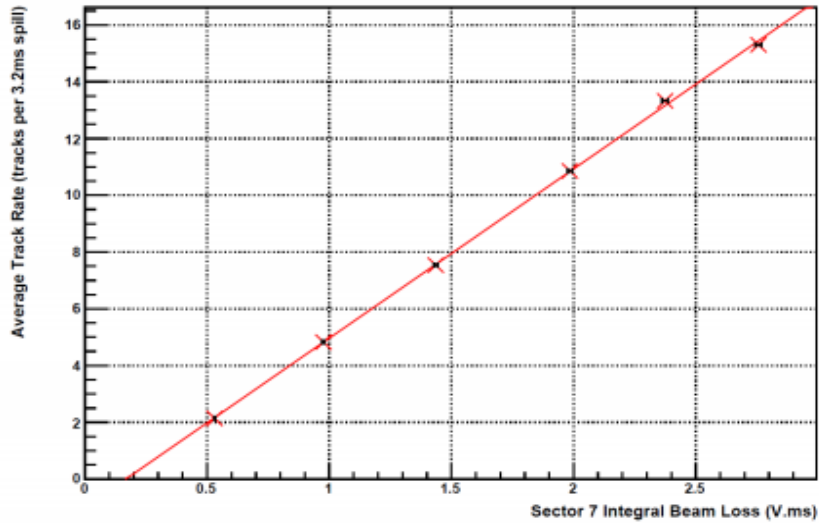
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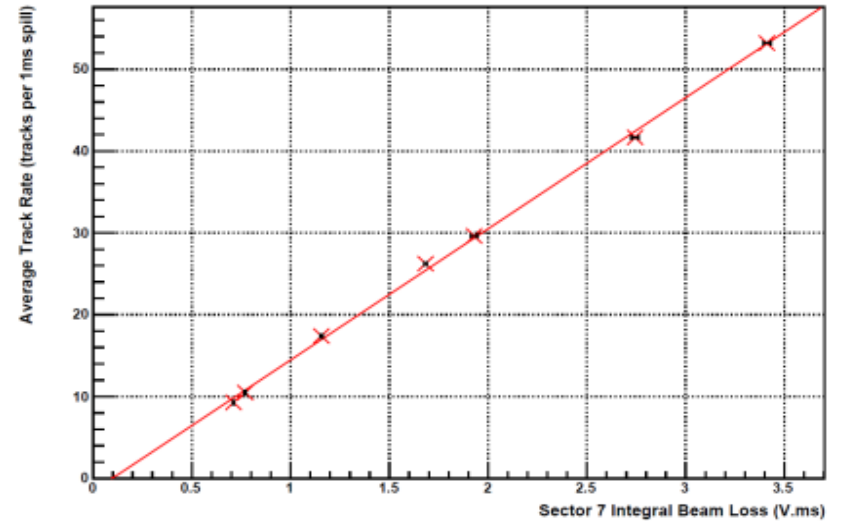
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Tracks per Beam loss

Total Particle Rate Vs Beam Loss using Reconstructed TOF Tracks for 15th June 2010



Total Particle Rate Vs Beam Loss using Reconstructed TOF Tracks for 16th June 2010

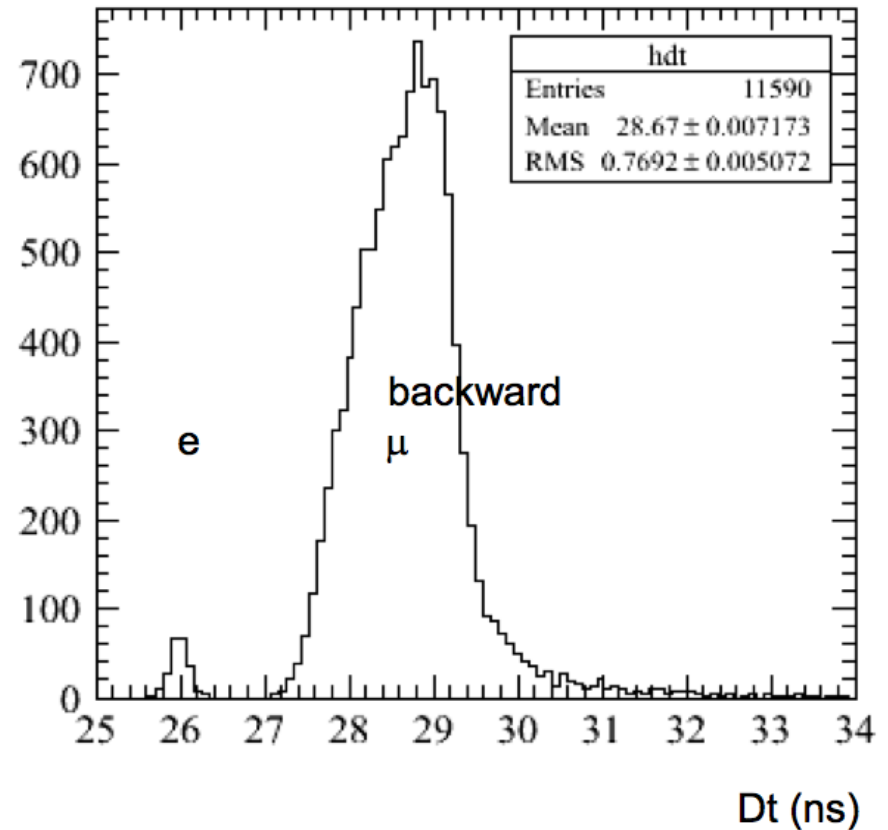
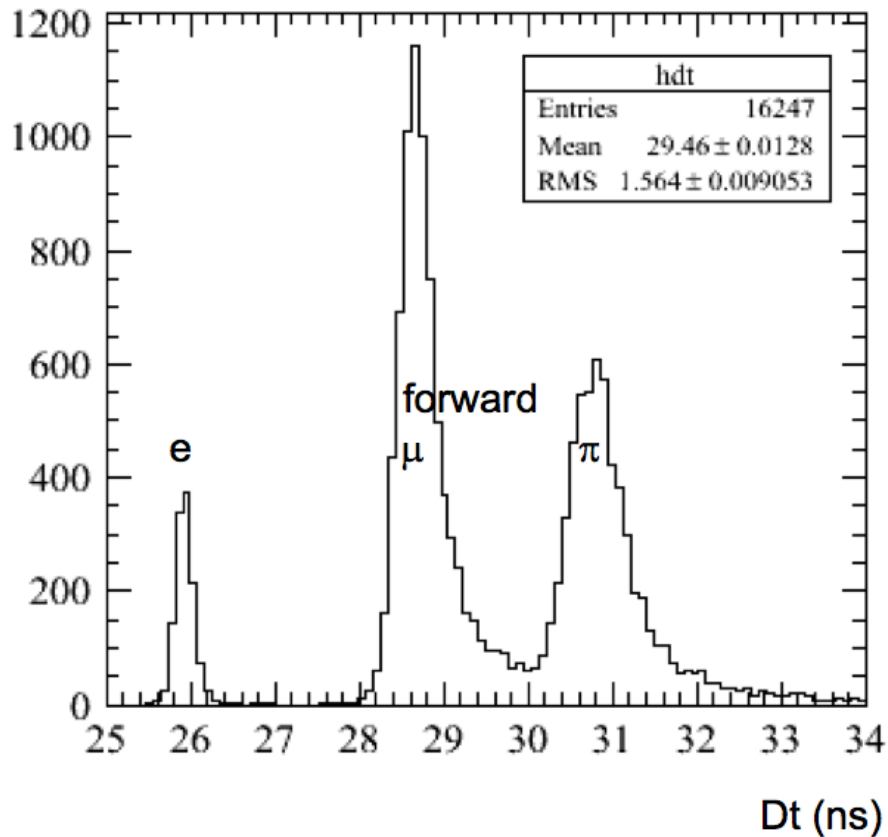


Rates at Matrix settings

| M0 | | μ^- rate | | | μ^+ rate | | |
|-----------------------|----|---------------|-----------|-----------|---------------|-----------|-----------|
| | | P_z (MeV/c) | | | P_z (MeV/c) | | |
| | | 140 | 200 | 240 | 140 | 200 | 240 |
| ϵ_N (mm·rad) | 3 | 4.1 | 6.3 | 4.9 | 16.8 | 33.1 | 33.0 |
| | | ± 0.2 | ± 0.2 | ± 0.2 | ± 1.8 | ± 3.2 | ± 2.6 |
| | 6 | 4.1 | 4.8 | 4.5 | 17.8 | 31.0 | 31.7 |
| | | ± 0.4 | ± 0.2 | ± 0.2 | ± 1.8 | ± 2.0 | ± 2.0 |
| | 10 | 4.6 | 5.4 | 4.4 | 21.6 | 34.0 | 26.1 |
| | | ± 0.2 | ± 0.2 | ± 0.1 | ± 2.2 | ± 2.5 | ± 1.5 |

TOF time resolution

TOF trace space resolutions



Beam parameter summary

| | ϵ_n (mm) | p_z (MeV/c) | $\langle p_z \rangle$ (MeV/c) | σ_{pz} (MeV/c) | ϵ_x (mm) | β_x (m) | α_x | D_x (cm) | ϵ_y (mm) | β_y (m) | α_y |
|---------------|----------------------|------------------|----------------------------------|--------------------------|----------------------|------------------|------------|---------------|----------------------|------------------|------------|
| μ^- beams | 3 | 140 | 168.0 | 24.4 | 4.20 | 0.87 | 0.55 | 14.5 | 1.57 | 2.67 | -0.18 |
| | | 200 | 219.0 | 25.6 | 3.25 | 0.96 | 0.56 | 16.3 | 1.18 | 2.98 | -0.22 |
| | | 240 | 256.5 | 27.2 | 2.73 | 1.04 | 0.60 | 16.3 | 1.06 | 3.08 | -0.22 |
| | 6 | 140 | 172.8 | 24.6 | 3.98 | 0.90 | 0.57 | 13.8 | 1.55 | 2.70 | -0.20 |
| | | 200 | 228.2 | 25.5 | 2.94 | 1.03 | 0.64 | 14.1 | 1.15 | 3.10 | -0.25 |
| | | 240 | 267.6 | 28.3 | 2.74 | 1.05 | 0.59 | 17.5 | 1.02 | 2.98 | -0.19 |
| | 10 | 140 | 179.9 | 24.7 | 3.77 | 0.92 | 0.59 | 14.2 | 1.50 | 2.74 | -0.19 |
| | | 200 | 243.1 | 26.6 | 2.71 | 1.09 | 0.63 | 16.0 | 1.05 | 3.29 | -0.26 |
| | | 240 | 279.2 | 29.3 | 2.88 | 1.12 | 0.65 | 15.1 | 0.93 | 2.96 | -0.19 |
| μ^+ beams | 3 | 200 | 219.0 | 25.6 | 3.25 | 0.96 | 0.56 | 16.3 | 1.18 | 2.98 | -0.22 |
| | | 240 | 256.5 | 27.2 | 2.73 | 1.04 | 0.60 | 16.3 | 1.06 | 3.08 | -0.22 |
| | 6 | 140 | 172.8 | 24.6 | 3.98 | 0.90 | 0.57 | 13.8 | 1.55 | 2.70 | -0.20 |
| | | 200 | 228.2 | 25.5 | 2.94 | 1.03 | 0.64 | 14.1 | 1.15 | 3.10 | -0.25 |
| | 10 | 240 | 267.6 | 28.3 | 2.74 | 1.05 | 0.59 | 17.5 | 1.02 | 2.98 | -0.19 |
| | | 140 | 179.9 | 24.7 | 3.77 | 0.92 | 0.59 | 14.2 | 1.50 | 2.74 | -0.19 |
| | | 200 | 243.1 | 26.6 | 2.71 | 1.09 | 0.63 | 16.0 | 1.05 | 3.29 | -0.26 |
| | | 240 | 279.2 | 29.3 | 2.88 | 1.12 | 0.65 | 15.1 | 0.93 | 2.96 | -0.19 |

