



Geant 4

Geant4.10.00-ref08 : χ^2 -tables for Bertini Cascade

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Additional Materials for
Geant4 Hadronic Group Meeting
October 29, 2014

Bertini: χ^2 /NDF for $p + C \rightarrow \pi^+ + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	10.44	22.16	16.84	19.05
10.00.p02	10.33	27.07	20.90	22.16
10.00-ref08	10.29	27.25	21.01	22.84

Bertini: χ^2 /NDF for $p + C \rightarrow \pi^- + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	2.36	9.62	23.64	22.43
10.00.p02	3.24	12.05	27.96	26.39
10.00-ref08	3.35	11.99	28.29	26.49

χ^2 is calculated over momentum spectra in all θ -bins

Bertini: χ^2 /NDF for $\pi^+ + C \rightarrow \pi^+ + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	31.16	44.57	53.84	22.59
10.00.p02	29.18	39.15	46.01	13.16
10.00-ref08	29.08	39.32	46.13	13.69

Bertini: χ^2 /NDF for $\pi^+ + C \rightarrow \pi^- + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	24.49	43.90	31.94	14.04
10.00.p02	20.58	38.83	21.34	7.55
10.00-ref08	20.35	38.16	21.00	7.44

χ^2 is calculated over momentum spectra in all θ -bins

Bertini: χ^2/NDF for $\pi^- + \text{C} \rightarrow \pi^+ + \text{X}$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	33.67	26.86	26.79	38.50
10.00.p02	34.08	30.86	22.84	23.56
10.00-ref08	34.67	31.52	23.12	23.72

Bertini: χ^2/NDF for $\pi^- + \text{C} \rightarrow \pi^- + \text{X}$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	35.87	34.54	55.37	66.42
10.00.p02	31.11	29.74	33.39	35.31
10.00-ref08	30.79	30.32	24.53	19.42

χ^2 is calculated over momentum spectra in all θ -bins

Bertini: χ^2 /NDF for $p + Be \rightarrow \pi^+ + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	14.10	17.97	20.38	20.57
10.00.p02	13.68	19.06	22.68	21.25
10.00-ref08	13.77	19.35	22.42	21.24

Bertini: χ^2 /NDF for $p + Be \rightarrow \pi^- + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	4.31	16.41	29.07	27.59
10.00.p02	3.62	15.83	29.73	27.06
10.00-ref08	3.78	15.93	39.50	27.34

χ^2 is calculated over momentum spectra in all θ -bins

Bertini: χ^2/NDF for $\pi^+ + \text{Be} \rightarrow \pi^+ + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	29.37	37.28	33.05	25.04
10.00.p02	28.03	33.11	25.93	15.39
10.00-ref08	27.97	33.42	26.07	15.63

Bertini: χ^2/NDF for $\pi^+ + \text{Be} \rightarrow \pi^- + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	37.89	35.96	23.31	13.40
10.00.p02	30.46	33.41	17.06	6.99
10.00-ref08	30.22	33.16	16.83	7.00

χ^2 is calculated over momentum spectra in all θ -bins

Bertini: χ^2/NDF for $\pi^- + \text{Be} \rightarrow \pi^+ + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	30.19	27.09	31.46	40.39
10.00.p02	32.47	29.01	25.69	24.13
10.00-ref08	32.53	29.21	25.96	24.35

Bertini: χ^2/NDF for $\pi^- + \text{Be} \rightarrow \pi^- + X$

	3 GeV/c	5 GeV/c	8 GeV/c	12 GeV/c
9.6.p03	37.99	40.46	60.65	75.38
10.00.p02	33.21	34.22	39.83	44.42
10.00-ref08	33.01	37.27	39.10	43.82

χ^2 is calculated over momentum spectra in all θ -bins