

AGS Beams, July 98

Beam	GeV/c	$\delta p/p$ (% fwhm)	Prod. Angle (deg)	$\Delta\Omega$ (msr)	Flux / 10^{13} 24 GeV/c protons on target						GeV/c	Purity	Remarks
					K^+	K^-	p	\bar{p}	π^+	π^-			
<i>Separated Charged Particle Beams</i>													
C4	≤ 0.83	4	0	12.0	4.6×10^6	1.5×10^6	1.5×10^9	1.0×10^6	6.0×10^9	6.0×10^9	0.80	$\pi^+/K^+ = 0.4$	L = 18 m - "LESBIII" ~ 1×10^6 stopped $K^+/10^{13}$ protons
C6,C8	≤ 0.75	5	5	10.0	1.0×10^6	3.3×10^5	3.3×10^8	4.6×10^4	2.0×10^9	2.0×10^9	0.70	$\pi^-/K^- = 5$ $\pi^+/K^+ = 1$	L = 15 m - "LESBII"
D6	≤ 1.9	6	5	1.6	5.5×10^6	2.3×10^6	3.0×10^8	1.1×10^6	4.9×10^8	4.1×10^8	1.80	$\pi^-/K^- = 0.8$ $\pi^-/\bar{p} = .07$	L = 31 m - "2GEV"
<i>Unseparated Charged Particle Beams</i>													
A1*	5-28	3	0	0.2	1.9×10^6	2.9×10^4	5.0×10^9	2.3×10^3	3.0×10^7	1.0×10^7	18		L = 130 m to MPS - "HEUB"
A2	< 6.5	5	3.5	0.75	5.8×10^7	1.9×10^7	6.9×10^8	6.3×10^6	1.3×10^9	8.8×10^8	6		L = 34 m - "6GEV"
A3*	1-28	4	0	0.1			6.0×10^8		1.0×10^8	4.0×10^7	14		Primarily HI "OR" with A1
B1*	5-28	3	0	0.05			3.0×10^8		3.0×10^7	2.0×10^7	14		HI/Test Beam "OR" with B5
B1'	0.5-28	8	3	.001			3.0×10^4		6.0×10^4	4.0×10^4	5		L = 56 m - Test Beam
B2	< 9	5	6	0.5	3.4×10^5	1.2×10^5	8.5×10^6	9.5×10^4	1.2×10^7	9.0×10^7	4		L = 40 m - Test Beam
C1	1-20	5	0	0.8	3.0×10^7	3.5×10^6	1.0×10^9	0.7×10^6	3.5×10^8	1.6×10^8	13		L = 100 m - "OR" with C5
C5*	1-28	2	0	0.15			1.0×10^8				13		L = 81 m - "OR" with C1
<i>Neutral Beam</i>													
B5	2-20		1-4.5	0.1			K_L^0 flux = 1.3×10^8 @ 3.75^0			2-20	$n/K_L^0 = 20$	L = 10 m - "OR" with B1	
<i>Muon Channel</i>													
D2	0.025-0.15	9 (π) 30 (μ)	135 (π)	24 (π)			μ^+ flux = 2.0×10^6 Surface μ^+ flux = 2.0×10^6					L = 12 m Inactive, not yet commissioned	
<i>Neutrino Beam</i>													
U							ν flux = $2.0 \times 10^{10}/m^2$ (Wide Band) $\bar{\nu}$ flux = $1.4 \times 10^{10}/m^2$ (Wide Band)					Not Presently Available FEB Flux avg. over 1.5 m R. $\langle E \rangle = 1.4$ GeV/c ² Wide Band	
<i>g-2 π-μ Transfer Line</i>													
V1	< 3.0	0.6	0				π^+ flux = 1.7×10^8 μ^+ flux = 7×10^5			3.0		L = 120, for injection to g-2 ring commissioned in 1996	

* These 0^0 beam lines can be used for full energy polarized protons and/or heavy ion beams