Compilation of NA49 results

July 31, 2013

1 20A GeV

1.1 Central Pb+Pb

Central (7%) Pb+Pb interactions at $20A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
N_W	$349 \pm 1 \pm 5$				[1]
π^+	$190 \pm 1 \pm 9^b$	$72.9 \pm 0.3 \pm 3.6^{b,g}$	167 ± 2^c	225 ± 20^c	[1] ^{a}
π^-	$221 \pm 1 \pm 11$	$84.8 \pm 0.4 \pm 4.2^g$	160 ± 2^c		[1] ^{a}
K^+	$40.7 \pm 0.7 \pm 2.2$	$16.4 \pm 0.6 \pm 0.4^g$	219 ± 5^d	266 ± 18^d	[1]
K^-	$10.3 \pm 0.1 \pm 0.2$	$5.58 \pm 0.07 \pm 0.11^g$	193 ± 9^d	292 ± 18^d	[1]
p		46.1 ± 2.1^e	249 ± 9^e	352 ± 13^e	[2] ^{a}
$\overline{p}$		0.06 ± 0.01^e	279 ± 64^e	394 ± 60^e	[2] ^{a}
Λ	$27.1 \pm 0.2 \pm 2.2$	$13.4 \pm 0.1 \pm 1.1^f$	$244 \pm 3 \pm 12^f$	$297 \pm 4 \pm 24^f$	[3] ^{a}
$\overline{\Lambda}$	$0.16 \pm 0.02 \pm 0.03$	$0.10 \pm 0.02 \pm 0.01^f$	$339 \pm 56 \pm 31^f$	$407 \pm 72 \pm 47^f$	[3] ^{a}
ϕ	$1.89 \pm 0.31 \pm 0.22$	$1.17 \pm 0.23 \pm 0.38^g$	$196.8 \pm 19.5 \pm 20.2^g$	$229.5 \pm 20.1 \pm 23.6^g$	[4]
Ξ^-	$1.5 \pm 0.13 \pm 0.17$	$0.93 \pm 0.13 \pm 0.10^h$	$221 \pm 14 \pm 13^h$	$289 \pm 27 \pm 29^h$	[3]

^{a} The yields are corrected for feed-down from weak decays.
^{b} Yield obtained by using π^+/π^-- ratio of TOF analysis.
^{c} Rapidity interval $0 < y < 0.2$
^{d} Rapidity interval $|y| < 0.1$
^{e} Rapidity interval $-0.38 < y < 0.32$
^{f} Rapidity interval $|y| < 0.4$
^{g} Rapidity interval $|y| = 0$
^{h} Rapidity interval $|y| < 0.5$

2 30A GeV

2.1 Central Pb+Pb

Central (7%) Pb+Pb interactions at $30A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
N_W	$349 \pm 1 \pm 5$				[1]
π^+	$241 \pm 1 \pm 12^b$	$83 \pm 0.4 \pm 4.2^{b,g}$	175 ± 2^c	225 ± 20^c	[1] ^{a}
π^-	$274 \pm 1 \pm 14$	$96.5 \pm 0.5 \pm 4.8^g$	169 ± 2^c		[1] ^{a}
K^+	$52.9 \pm 0.9^{+3}_{-3.5}$	$21.2 \pm 0.8^{+1.5}_{-0.9}{}^g$	232 ± 5^d	293 ± 19^d	[1]
K^-	$16 \pm 0.2 \pm 0.4$	$7.8 \pm 0.1 \pm 0.2^g$	230 ± 7^d	331 ± 20^d	[1]
p		42.1 ± 2.0^e	265 ± 10^e	362 ± 14^e	[2] ^{a}
$\overline{p}$		0.16 ± 0.02^e	290 ± 45^e	395 ± 60^e	[2] ^{a}
Λ	$36.9 \pm 0.3 \pm 3.3$	$14.7 \pm 0.2 \pm 1.2^f$	$249 \pm 2 \pm 13^f$	$310 \pm 5 \pm 25^f$	[3] ^{a}
$\overline{\Lambda}$	$0.39 \pm 0.02 \pm 0.04$	$0.21 \pm 0.02 \pm 0.02^f$	$284 \pm 13 \pm 26^f$	$357 \pm 32 \pm 30^f$	[3] ^{a}
ϕ	$1.84 \pm 0.22 \pm 0.29$	$0.94 \pm 0.13 \pm 0.30^g$	$237 \pm 17.8 \pm 22.9^g$	$284.6 \pm 17.3 \pm 28.4^g$	[4]
Ξ^-	$2.42 \pm 0.19 \pm 0.29$	$1.17 \pm 0.13 \pm 0.13^h$	$233 \pm 11 \pm 14^h$	$278 \pm 19 \pm 28^h$	[3]
$\overline{\Xi}^+$	$0.12 \pm 0.02 \pm 0.03$	$0.05 \pm 0.01 \pm 0.01^h$	$311 \pm 75 \pm 31^h$	$326 \pm 60 \pm 33^h$	[3]

^{a} The yields are corrected for feed-down from weak decays.
^{b} Yield obtained by using π^+/π^-- ratio of TOF analysis.
^{c} Rapidity interval $0 < y < 0.2$
^{d} Rapidity interval $|y| < 0.1$
^{e} Rapidity interval $-0.48 < y < 0.22$
^{f} Rapidity interval $|y| < 0.4$
^{g} Rapidity interval $|y| = 0$
^{h} Rapidity interval $|y| < 0.5$

3 40A GeV

3.1 Semi- Central C+C

Minimum Bias (65.7%) C+C interactions at $40A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
N_W	8.8 ± 1.1				[27]
π^-	$10.0 \pm 1.4 \pm 1.5$	$3.25 \pm 0.06 \pm 0.48^c$	169 ± 8^c	277 ± 11^c	[27]^{a,b}
K^+	$1.26 \pm 0.78 \pm 0.19$	$0.46 \pm 0.06^{\pm} 0.07d$	171 ± 18^d		[27]
K^-	$0.44 \pm 0.04 \pm 0.07$	$0.19 \pm 0.02 \pm 0.03^d$	137 ± 24^d		[27]

^{a} The yields are corrected for feed-down from weak decays.
^{b} The π^+ yield is similar due to isospin symmetry.
^{c} Rapidity interval $0 < y < 0.2$
^{d} Rapidity interval $0.8 < y < 1.0$

3.2 Semi- Central Si+Si

Semi-Central (29.2%) Si+Si interactions at $40A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$< m_T > -m_0$ [MeV]	Reference / Comments
N_W	30.5 ± 3.5				[27]
π^-	$34.6 \pm 2.7 \pm 5.2$	$11.4 \pm 0.19 \pm 1.71^c$	162 ± 6^c	247 ± 11^c	[27]^{a,b}
K^+	$5.1 \pm 1.2 \pm 0.76$	1.82 ± 0.30^e	203 ± 10^d		[27]
K^-	$2.0 \pm 1.0 \pm 0.3$	0.87 ± 0.07^e	166 ± 13^d		[27]

[a] The yields are corrected for feed-down from weak decays.
[b] The π^+ yield is similar due to isospin symmetry.
[c] Rapidity interval $0 < y < 0.2$
[d] Rapidity interval $0.8 < y < 1.0, 0.2 < m_T < 0.5 GeV/c^2$.
[e] at midrapidity, average from fits.

3.3 Central Pb+Pb

Central (7%) Pb+Pb interactions at $40A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$< m_T > -m_0$ [MeV]	Reference / Comments
N_W	$349 \pm 1 \pm 5$				[10]
π^+	$293 \pm 3 \pm 15^b$	$96.6 \pm 0.4 \pm 6^{b,c}$		265 ± 24^d	[1, 10] ^{a}
π^-	$322 \pm 3 \pm 16$	$106.1 \pm 0.4 \pm 6^c$	$169 \pm 2 \pm 10^d$	260 ± 8^d	[1, 10] ^{a}
K^+	$59.1 \pm 1.9 \pm 3$	$20.1 \pm 0.3 \pm 1^c$	$232 \pm 3 \pm 6^e$	306 ± 19^e	[1, 10]
K^-	$19.2 \pm 0.5 \pm 1.0$	$7.58 \pm 0.12 \pm 0.4^c$	$226 \pm 3 \pm 6^e$	306 ± 18^e	[1, 10]
p		41.3 ± 1.1^f	257 ± 11^f	367 ± 16^f	[2] ^{a}
$\overline{p}$		0.32 ± 0.03^f	246 ± 35^f	355 ± 51^f	[2] ^{a}
d		1.02 ± 0.05^g	339 ± 9^g	444 ± 16^g	[11]
Λ	$43.1 \pm 0.4 \pm 4.3$	$14.6 \pm 0.2 \pm 1.2^h$	$258 \pm 3 \pm 13^h$	$327 \pm 5 \pm 27^h$	[3] ^{a}
$\overline{\Lambda}$	$0.68 \pm 0.03 \pm 0.07$	$0.33 \pm 0.02 \pm 0.03^h$	$301 \pm 10 \pm 27^h$	$371 \pm 22 \pm 31^h$	[3] ^{a}
ϕ	$2.55 \pm 0.17 \pm 0.19$	$1.16 \pm 0.16 \pm 0.14^i$	$244.6 \pm 9.0 \pm 5.8^i$	$297.8 \pm 10.0 \pm 9.2^i$	[4]
Ξ^-	$2.96 \pm 0.20 \pm 0.36$	$1.15 \pm 0.11 \pm 0.13^j$	$222 \pm 9 \pm 13^j$	$285 \pm 17 \pm 29^j$	[3]
$\overline{\Xi}^+$	$0.13 \pm 0.01 \pm 0.02$	$0.07 \pm 0.01 \pm 0.01^j$	$277 \pm 32 \pm 28^j$	$337 \pm 36 \pm 34^j$	[3]
$\Omega + \overline{\Omega}$	$0.14 \pm 0.03 \pm 0.04$	$0.1 \pm 0.02 \pm 0.02^j$	$218 \pm 39 \pm 39^j$	311 ± 62^j	[12]

[a] The yields are corrected for feed-down from weak decays.
[b] Yield obtained by using π^+/π^-- ratio of TOF analysis.
[c] Rapidity interval $|y| < 0.6$
[d] Rapidity interval $0.0 < y < 0.02$
[e] Rapidity interval $|y| < 0.1$
[f] Rapidity interval $-0.32 < y < 0.08$
[g] Rapidity interval $-0.52 < y < -0.02$
[h] Rapidity interval $|y| < 0.4$
[i] Rapidity interval $|y| = 0$
[j] Rapidity interval $|y| < 0.5$

3.4 Minimum Bias Pb+Pb

Minimum Bias (65%) Pb+Pb interactions at 40 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5, $C = 33.5 - 43.5\%$, $N_W = 93 \pm 7$					
π^+	90.9 ± 1.9^b	$26.2 \pm 0.2^{b,c}$			[27][b]
π^-	101.1 ± 1.9	29.1 ± 0.2^c	168 ± 3	263 ± 3	[27][a]
K^+	13.6 ± 2.3	4.2 ± 0.2^d	208 ± 9^d	265 ± 16	[27]
K^-	4.6 ± 1.5	2.0 ± 0.1^d	219 ± 14^d	291 ± 24	[27]
Centrality Bin 4, $C = 23.5 - 33.5\%$, $N_W = 144 \pm 4$					[9]
π^+	131.6 ± 2.2^b	$39.3 \pm 0.3^{b,c}$			[27][b]
π^-	146.3 ± 2.2	43.7 ± 0.3^c	172 ± 3	269 ± 3	[27][a]
K^+	22.0 ± 2.8	6.9 ± 0.2^d	221 ± 7^d	291 ± 14	[27]
K^-	7.0 ± 1.8	2.7 ± 0.1^d	207 ± 10^d	275 ± 20	[27]/
Centrality Bin 3, $C = 12.5 - 23.5\%$, $N_W = 212 \pm 3$					[27]
π^+	192.6 ± 2.4^b	$61.0 \pm 0.3^{b,c}$			[27][b]
π^-	214 ± 2.4	67.8 ± 0.4^c	178 ± 2	273 ± 2	[27][a]
K^+	34.2 ± 3.5	10.9 ± 0.3^d	234 ± 6^d	309 ± 12	[27]
K^-	11.4 ± 2.3	4.7 ± 0.2^d	27 ± 8^d	304 ± 16	[27]
Centrality Bin 2, $C = 5 - 12.5\%$, $N_W = 292 \pm 2$					[27]
π^+	257.4 ± 2.4^b	$84.4 \pm 0.4^{b,c}$			[27][b]
π^-	286 ± 2.4	93.8 ± 0.5^c	172 ± 3	272 ± 3	[27][a]
K^+	49.1 ± 4.3	16.2 ± 0.4^d	238 ± 6^d	307 ± 11	[27]
K^-	15.9 ± 2.7	6.2 ± 0.2^d	231 ± 9^d	294 ± 16	[27]
Centrality Bin 1, $C = 0 - 5\%$, $N_W = 356 \pm 1$					[27]
π^+	313.2 ± 2.4^b	$106.2 \pm 0.6^{b,c}$			[27][b]
π^-	348 ± 2.4	118 ± 0.6^c	172 ± 3	270 ± 3	[27][a]
K^+	60.0 ± 4.7	20.1 ± 0.6^d	238 ± 7^d	312 ± 13	[27]
K^-	21.0 ± 3.1	8.5 ± 0.3^d	239 ± 10^d	323 ± 19	[27]

[a] The yields are corrected for feed-down from weak decays.
[b] Yield obtained by using the $\pi^+/\pi^- = 0.90 \pm 0.1$ ratio of combined dE/dx-TOF analysis.
[c] Rapidity interval $0 < y < 0.4$
[d] from combined dE/dx-TOF analysis, see paper

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5, $C = 33.5 - 43.5\%$, $N_W = 93 \pm 7.0$					[8]
p	—	$8.19 \pm 0.20 \pm 0.57^b$	—	286.5 ± 10^c	[8]
Λ	$9.9 \pm 0.1 \pm 1.3$	$3.2 \pm 0.05 \pm 0.4^a$	$220 \pm 5 \pm 13^a$	$261 \pm 6 \pm 26^a$	[9]
$\bar{\Lambda}$	$0.17 \pm 0.01 \pm 0.03$	$0.09 \pm 0.01 \pm 0.01^a$	—	—	[9]
Centrality Bin 4, $C = 23.5 - 33.5\%$, $N_W = 144 \pm 4.0$					[8]
p	—	$12.69 \pm 0.33 \pm 0.51^b$	—	296.4 ± 10^c	[8]
Λ	$16.4 \pm 0.2 \pm 2.1$	$5.3 \pm 0.1 \pm 0.6^a$	$230 \pm 4 \pm 14^a$	$277 \pm 6 \pm 28^a$	[9]
$\bar{\Lambda}$	$0.27 \pm 0.02 \pm 0.05$	$0.14 \pm 0.01 \pm 0.02^a$	$346 \pm 69 \pm 35^a$	$392 \pm 36 \pm 51^a$	[9]
Centrality Bin 3, $C = 12.5 - 23.5\%$, $N_W = 212 \pm 3.0$					[9]
p	—	$21.01 \pm 0.51 \pm 1.47^b$	—	382.2 ± 10^c	[8]
Λ	$23.6 \pm 0.3 \pm 3.1$	$8.4 \pm 0.1 \pm 0.9^a$	$247 \pm 3 \pm 15^a$	$299 \pm 6 \pm 30^a$	[9]
$\bar{\Lambda}$	$0.35 \pm 0.03 \pm 0.07$	$0.18 \pm 0.02 \pm 0.02^a$	$276 \pm 38 \pm 28^a$	$321 \pm 42 \pm 42^a$	[9]
Centrality Bin 2, $C = 5 - 12.5\%$, $N_W = 292 \pm 2.0$					[8]
p	—	$30.69 \pm 0.79 \pm 2.15^b$	—	336.5 ± 11^c	[8]
Λ	$34.1 \pm 0.6 \pm 4.4$	$12.6 \pm 0.2 \pm 1.4^a$	$256 \pm 4 \pm 15^a$	$310 \pm 8 \pm 31^a$	[9]
$\bar{\Lambda}$	$0.43 \pm 0.05 \pm 0.09$	$0.23 \pm 0.03 \pm 0.03^a$	$299 \pm 40 \pm 30^a$	$366 \pm 56 \pm 48^a$	[9]
Centrality Bin 1, $C = 0 - 5\%$, $N_W = 356 \pm 1.0$					[8]
p	—	$38.64 \pm 1.11 \pm 2.70^b$	—	346.3 ± 11^c	[8]
Λ	$41.1 \pm 0.8 \pm 5.3$	$14.9 \pm 0.3 \pm 1.6^a$	$268 \pm 7 \pm 16^a$	$324 \pm 10 \pm 33^a$	[9]
$\bar{\Lambda}$	$0.59 \pm 0.08 \pm 0.12$	$0.29 \pm 0.04 \pm 0.04^a$	$325 \pm 81 \pm 32^a$	$405 \pm 72 \pm 53^a$	[9]

[a] Rapidity interval $|y| < 0.4$
[b] Rapidity interval $-0.02 < y < 0.18$
[c] $<m_T>$ from macro producing the $<m_T>$ vs N_w plot in [8]

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 3+4, $C = 12.5 - 23.5\%$, $N_W = 178 \pm 8$					[9]
Ξ^-	—	$0.49 \pm 0.07 \pm 0.05^a$	$233 \pm 18 \pm 14^a$	$272 \pm 23 \pm 33^a$	[9]
Centrality Bin 1+2, $C = 0 - 12.5\%$, $N_W = 314 \pm 4$					[9]
Ξ^-	—	$1.25 \pm 0.23 \pm 0.14^a$	$232 \pm 19 \pm 14^a$	$286 \pm 33 \pm 34^a$	[9]

[a] Rapidity interval $|y| < 0.5$

4 80A GeV

4.1 Central Pb+Pb

Central (7%) Pb+Pb interactions at $80A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
N_W	$349 \pm 1 \pm 5$				[10]
π^+	$446 \pm 5 \pm 22^b$	$132 \pm 0.5 \pm 7^{b,c}$			[1, 10] ^{a}
π^-	$474 \pm 5 \pm 23$	$140.4 \pm 0.5 \pm 7^c$	$179 \pm 3 \pm 10^d$	258 ± 15	[1, 10] ^{a}
K^+	$76.9 \pm 2 \pm 4$	$24.6 \pm 0.2 \pm 1.2^c$	$230 \pm 5 \pm 6^e$	305 ± 18^e	[1, 10]
K^-	$32.4 \pm 0.6 \pm 1.6$	$11.7 \pm 0.1 \pm 0.6^c$	$217 \pm 3 \pm 6^e$	308 ± 18^e	[1, 10]
p		30.1 ± 1^f	260 ± 11^f	364 ± 16^f	[2] ^{a}
$\overline{p}$		0.87 ± 0.07^f	283 ± 30^f	385 ± 41^f	[2] ^{a}
d		0.59 ± 0.04^g	360 ± 15^g	467 ± 22^g	[11]
Λ	$50.1 \pm 0.6 \pm 5.5$	$12.9 \pm 0.2 \pm 1.0^h$	$265 \pm 4 \pm 13^h$	$338 \pm 7 \pm 27^h$	[3] ^{a}
$\overline{\Lambda}$	$1.82 \pm 0.06 \pm 0.19$	$0.82 \pm 0.03 \pm 0.08^h$	$292 \pm 10 \pm 27^h$	$363 \pm 19 \pm 30^h$	[3] ^{a}
ϕ	$4.04 \pm 0.19 \pm 0.31$	$1.52 \pm 0.11 \pm 0.22^i$	$239.8 \pm 8.3 \pm 10.9^i$	$292.6 \pm 7.6 \pm 15.3^i$	[4]
Ξ^-	$3.8 \pm 0.26 \pm 0.61$	$1.22 \pm 0.14 \pm 0.13^j$	$227 \pm 14 \pm 14^j$	$317 \pm 22 \pm 32^j$	[3]
$\overline{\Xi}^+$	$0.58 \pm 0.06 \pm 0.13$	$0.21 \pm 0.03 \pm 0.02^j$	$255 \pm 23 \pm 26^j$	$298 \pm 38 \pm 30^j$	[3]

^{a} The yields are corrected for feed-down from weak decays.
^{b} Yield obtained by using π^+/π^-- ratio of TOF analysis.
^{c} Rapidity interval $|y| < 0.6$
^{d} Rapidity interval $0.0 < y < 0.02$
^{e} Rapidity interval $|y| < 0.1$
^{f} Rapidity interval $-0.36 < y < 0.04$
^{g} Rapidity interval $-0.76 < y < -0.26$
^{h} Rapidity interval $|y| < 0.4$
^{i} Rapidity interval $|y| = 0$
^{j} Rapidity interval $|y| < 0.5$

5 158A GeV

5.1 p+p

All inelastic p+p interactions at 158 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$< p_T >$ [MeV]	Reference / Comments
π^+	3.018 ± 0.06	0.742 ± 0.015			[15]
π^-	2.360 ± 0.047	0.671 ± 0.013			[15]
K^+	0.227 ± 0.005^c	0.066 ± 0.002^c		0.416 ± 0.009^c	[13]
K^-	0.130 ± 0.003^c	0.047 ± 0.001^c		0.400 ± 0.009^c	[13]
K^0_S	0.18 ± 0.04				[14]/prel.
$K^*(892)^0$	$0.0741 \pm 0.0015 \pm 0.0067$	$0.0257 \pm 0.0031 \pm 0.0023$	$0.166 \pm 0.011 \pm 0.010$		[22]
$\bar{K}^*(892)^0$	$0.0523 \pm 0.0010 \pm 0.0047$	$0.0183 \pm 0.0027 \pm 0.0016$	$0.150 \pm 0.010 \pm 0.010$		[22]
p	$1.162^{+0.035}_{-0.023}c$				[16] ^{d}
$\bar{p}$	0.039 ± 0.001^c				[16] ^{d}
n	0.665 ± 0.067^c				[16] ^{d}
$\Lambda(1520)$	0.012 ± 0.003				[17]/prel.
ϕ	0.013 ± 0.0016	0.00563 ± 0.0005^a	169 ± 17^b		[18]
Λ	0.116 ± 0.011				[19]/prel.
$\overline{\Lambda}$	0.0137 ± 0.007				[19]/prel.
Ξ^-	0.0031 ± 0.0003				[19]/prel.
$\overline{\Xi}^+$	0.00092 ± 0.00009				[19]/prel.
Ω	0.00026 ± 0.00013				[19]/prel.
$\overline{\Omega}$	0.00016 ± 0.00009				[19]/prel.

^{a} Rapidity interval $0.09 < y < 0.89$
^{b} Rapidity interval $0 < y < 1.5$
^{c} Note that only the systematic error is shown because the statistical errors is negligible
^{d} The yields are corrected for feed-down from weak decays.

5.2 p+Pb

p+Pb interactions at 158 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$< m_T > -m_0$ [MeV]	Reference / Comments
$< \nu >= 3.7$					[20]/prel.
Λ		0.079 ± 0.002			[20]/prel.^{a}
$\overline{\Lambda}$		0.0198 ± 0.0006			[20]/prel.^{a}
Ξ^-		0.004 ± 0.0003			[20]/prel.
$\overline{\Xi}^+$		0.0014 ± 0.0002			[20]/prel.
$< \nu >= 5.7$					[20]/prel.
Λ		0.101 ± 0.003			[20]/prel.^{a}
$\overline{\Lambda}$		0.0216 ± 0.0006			[20]/prel.^{a}
Ξ^-		0.0058 ± 0.0004			[20]/prel.
$\overline{\Xi}^+$		0.0018 ± 0.0002			[20]/prel.

^{a} The yields are corrected for feed-down from weak decays.

5.3 Semi-Central C+C

Semi-Central (15.3%) C+C interactions at 158 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx 0}$	$T_{y\approx 0}$ [MeV]	$< m_T > -m_0$ [MeV]	Reference / Comments
N_W	14 ± 2				[21]
π^+	$22.4 \pm 0.3 \pm 1.6$	5.6 ± 0.6^a	171 ± 10^b		[21] ^{f}
π^-	$22.2 \pm 0.3 \pm 1.6$	5.7 ± 0.6^a	171 ± 10^b		[21] ^{f}
K^+	$2.54 \pm 0.03 \pm 0.25$	0.85 ± 0.085^a	188 ± 10^b		[21]
K^-	$1.49 \pm 0.05 \pm 0.15$	0.53 ± 0.053^a	185 ± 10^b		[21]
$K^*(892)^0$	0.8 ± 0.24				[22]
$\bar{K}^*(892)^0$	0.43 ± 0.14				[22]
Λ	$1.32 \pm 0.05 \pm 0.32$	$0.24 \pm 0.01 \pm 0.04^c$	$199 \pm 8 \pm 15^c$	$224 \pm 6 \pm 27$	[21, 9] ^{f}
$\bar{\Lambda}$	$0.18 \pm 0.02 \pm 0.03$	$0.064 \pm 0.003 \pm 0.01^c$	$184 \pm 11 \pm 17^c$	$204 \pm 9 \pm 27$	[9] ^{f}
ϕ	$0.18 \pm 0.01 \pm 0.02$	0.062 ± 0.008^d	189 ± 28^e		[21]

^{a} Rapidity interval $-0.13 < y < 0.33$
^{b} Rapidity interval $0.1 < y < 0.33$
^{c} Rapidity interval $|y| < 0.4$
^{d} Rapidity interval $0 < y < 0.4$
^{e} Rapidity interval $0 < y < 1.8$
^{f} The yields are corrected for feed-down from weak decays.

5.4 Semi-Central Si+Si

Semi-Central (12.2%) Si+Si interactions at 158 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx 0}$	$T_{y\approx 0}$ [MeV]	$< m_T > -m_0$ [MeV]	Reference / Comments
N_W	37 ± 3				[21]
π^+	$56.6 \pm 0.7 \pm 4$	14.8 ± 1.5^a	173 ± 10^b		[21] ^{f}
π^-	$57.6 \pm 0.6 \pm 4$	15 ± 1.5^a	178 ± 10^b		[21] ^{f}
K^+	$7.44 \pm 0.08 \pm 0.74$	2.4 ± 0.24^a	192 ± 10^b		[21]
K^-	$4.42 \pm 0.04 \pm 0.44$	1.5 ± 0.15^a	196 ± 10^b		[21]
$K^*(892)^0$	2.2 ± 0.66				[22]
$\bar{K}^*(892)^0$	1.3 ± 0.4				[22]
Λ	$3.88 \pm 0.16 \pm 0.56$	$0.88 \pm 0.04 \pm 0.13^c$	$235 \pm 9 \pm 16^c$	$267 \pm 16 \pm 32$	[21, 9] ^{f}
$\bar{\Lambda}$	$0.49 \pm 0.05 \pm 0.11$	$0.16 \pm 0.007 \pm 0.038^c$	$205 \pm 9 \pm 17^c$	$230 \pm 10 \pm 30$	[9] ^{f}
ϕ	$0.66 \pm 0.03 \pm 0.08$	0.19 ± 0.02^d	220 ± 28^e		[21]
Ξ^-	—	$0.07 \pm 0.01 \pm 0.01$	$210 \pm 13 \pm 13$	$239 \pm 16 \pm 29$	[9]

^{a} Rapidity interval $-0.13 < y < 0.33$
^{b} Rapidity interval $0.1 < y < 0.33$
^{c} Rapidity interval $|y| < 0.4$
^{d} Rapidity interval $0 < y < 0.4$
^{e} Rapidity interval $0 < y < 1.8$
^{f} The yields are corrected for feed-down from weak decays.

5.5 Central Pb+Pb

Central (5%) Pb+Pb interactions at 158 A·GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T> -m_0$ [MeV]	Reference / Comments
N_W	362 ± 8				[10]
π^+	$619 \pm 17 \pm 31$	$170.1 \pm 0.7 \pm 9^i$			[1, 10] ^{c,e,n}
π^-	$639 \pm 17 \pm 31$	$175.4 \pm 0.7 \pm 9^i$	$180 \pm 3 \pm 10^g$	263 ± 17^g	[1, 10] ^{c,n}
K^+	$103 \pm 5 \pm 5$	$29.6 \pm 0.3 \pm 1.5^i$	$232 \pm 4 \pm 6^h$	308 ± 18^h	[1, 10]
K^-	$51.9 \pm 1.9 \pm 3$	$16.8 \pm 0.2 \pm 0.8^i$	$226 \pm 9 \pm 6^h$	325 ± 20^h	[1, 10]
$K^*(892)^0$	$14.2 \pm 0.6 \pm 3.5$				[22]^b
$\bar{K}^*(892)^0$	$7.2 \pm 0.4 \pm 2.3$				[22]^b
p		29.6 ± 0.9^j	308 ± 9^j	413 ± 13^j	[2] ^{n}
$\bar{p}$		1.66 ± 0.17^j	291 ± 15^j	384 ± 19^j	[2] ^{n}
d		0.33 ± 0.03^k	425 ± 39^k	540 ± 50^k	[11]
d	$2.4 - 4.8^b$	$0.41 \pm 0.14^{b,o}$			[23]
$\bar{d}$	$\approx 3.3 \cdot 10^{-3}$ ^{b}	$(9.5 \pm 1.4) \cdot 10^{-4}$ ^{b,o}			[23]
Λ	$48.5 \pm 0.65 \pm 8.6$	$10.3 \pm 0.11 \pm 1.1^f$	$301 \pm 4 \pm 15^f$	$368 \pm 7 \pm 28$	[3] ^{a,n}
$\bar{\Lambda}$	$3.32 \pm 0.06 \pm 0.33$	$1.34 \pm 0.03 \pm 0.14^f$	$303 \pm 6 \pm 27^f$	$388 \pm 13 \pm 31$	[3] ^{a,n}
$\Lambda(1520)$	1.57 ± 0.44				[25]/prel.^{a}
ϕ	$8.46 \pm 0.38 \pm 0.33$	$2.44 \pm 0.10 \pm 0.08$	$378.3 \pm 6.7 \pm 15.2^l$	243 ± 18	[4]
Ξ^-	$4.4 \pm 0.17 \pm 0.62$	$1.56 \pm 0.11 \pm 0.16$	$277 \pm 9 \pm 17$	$327 \pm 13 \pm 33$	[3] ^{a}
$\bar{\Xi}^+$	$0.71 \pm 0.04 \pm 0.09$	$0.35 \pm 0.03 \pm 0.03$	$321 \pm 15 \pm 32$	$384 \pm 26 \pm 38$	[3] ^{a}
Ω	$0.59 \pm 0.1 \pm 0.04$	$0.19 \pm 0.03 \pm 0.01$	$267 \pm 26 \pm 10$	351 ± 77^m	[12] ^{b}
$\bar{\Omega}$	$0.26 \pm 0.06 \pm 0.03$	$0.097 \pm 0.02 \pm 0.01$	$259 \pm 35 \pm 18$	351 ± 77^m	[12] ^{b}

^{a} published value refers to 10% central trigger, the value in the table is scaled by a factor 1.08 in order to correct to the 5% trigger.

^{b} published value refers to 23.5% central trigger, the value in the table is scaled by a factor 1.38 in order to correct to the 5% trigger.

The scaling factors used in ^{a} and ^{b} are calculated assuming that the mean multiplicity in central collisions ($< 20\%$) is proportional to the number of wounded nucleons. This number was calculated within Fritiof model using as an input the measured value of the cross section for the selected by the trigger central collisions.

^{e} Yield obtained by using π^+/π^-- ratio of TOF analysis at midrapidity.

^{f} Rapidity interval $|y| \leq 0.4$

^{g} Rapidity interval $0 < y < 0.2$

^{h} Rapidity interval $|y| < 0.1$

^{i} Rapidity interval $|y| < 0.6$

^{j} Rapidity interval $-0.51 < y < -0.11$

^{k} Rapidity interval $-0.91 < y < -0.41$

^{l} Rapidity interval $0.09 < y < 0.89$

^{m} Mean transverse mass calculated for $\Omega + \bar{\Omega}$

^{n} The yields are corrected for feed-down from weak decays.

^{o} Rapidity interval $-1.2 < y < 0.6$

5.6 Minimum Bias Pb+Pb

Minimum Bias (65%) Pb+Pb interactions at $158A$ GeV.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5, $C = 33.5 - 43.5\%$, $N_W = 85 \pm 7$					
π^+	148 ± 3.4^b	$34.6 \pm 0.3^{b,c}$			[27][b]
π^-	159 ± 3.4	37.2 ± 0.3^c	177 ± 2	275 ± 2	[27][a]
K^+	23.2 ± 1.9	6.39 ± 0.13^d	209 ± 3	277 ± 7	[27]
K^-	12.2 ± 1.2	3.92 ± 0.11^d	202 ± 5	264 ± 10	[27]
Centrality Bin 4, $C = 23.5 - 33.5\%$, $N_W = 146 \pm 4$					
π^+	220 ± 3.9^b	$53.2 \pm 0.4^{b,c}$			[27][b]
π^-	237 ± 3.8	57.2 ± 0.4^c	178 ± 2	280 ± 2	[27][a]
K^+	34.9 ± 2.0	10.1 ± 0.2^d	215 ± 3	283 ± 6	[27]
K^-	20.5 ± 1.7	6.26 ± 0.12^d	210 ± 4	273 ± 8	[27]
Centrality Bin 3, $C = 12.5 - 23.5\%$, $N_W = 211 \pm 3$					
π^+	324.2 ± 4.2^b	$80.2 \pm 0.5^{b,c}$			[27][b]
π^-	348.6 ± 4.2	86.2 ± 0.43^c	180 ± 1	282 ± 2	[27][a]
K^+	57.1 ± 2.9	15.86 ± 0.23^d	227 ± 2	300 ± 5	[27]
K^-	31.3 ± 2.0	9.54 ± 0.17^d	217 ± 3	285 ± 8	[27]
Centrality Bin 2, $C = 5 - 12.5\%$, $N_W = 288 \pm 2$					
π^+	446 ± 4.5^b	$112.9 \pm 0.6^{b,c}$			[27][b]
π^-	480 ± 4.5	121.4 ± 0.6^c	187 ± 1	287 ± 2	[27][a]
K^+	78.5 ± 2.8	22.7 ± 0.3^d	229 ± 3	302 ± 5	[27]
K^-	43.2 ± 2.0	13.4 ± 0.2^d	221 ± 4	294 ± 7	[27]
Centrality Bin 1, $C = 0 - 5\%$, $N_W = 356 \pm 1$					
π^+	560 ± 4.7^b	$147.7 \pm 0.7^{b,c}$			[27][b]
π^-	602 ± 4.7	158.8 ± 0.7^c	184 ± 2	281 ± 2	[27][a]
K^+	97.8 ± 3.0	28.3 ± 0.4^d	232 ± 3	305 ± 6	[27]
K^-	54.0 ± 2.1	16.8 ± 0.2^d	225 ± 5	298 ± 9	[27]

[a] The yields are corrected for feed-down from weak decays.
[b] Yield obtained by using $\pi^+/\pi^- = 0.93 \pm 0.2$ ratio of TOF analysis.
[c] Rapidity interval $0 < y < 0.4$
[d] Average of results from TOF ($|y| < 0.2$) and $\mathrm{d}E/\mathrm{d}x$ analysis ($0.1 < y < 0.3$)

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5, $C = 33.5 - 43.5\%$, $N_W = 85$					[8]
ϕ	1.46 ± 0.10				[25]/prel.
p		5.7 ± 0.2^a	245 ± 10^a	315 ± 32^a	[11] ^{c}
p		6.07 ± 0.18^e		308 ± 12^g	[8]
$\bar{p}$		0.55 ± 0.03^f	255 ± 28^a	315 ± 32^{ag}	/TOF^c
$\bar{p}$	1.38 ± 0.09^d	0.55 ± 0.03^f		286 ± 30^g	[8]^c
d		0.08 ± 0.01^b	279 ± 28^b		[11]
Centrality Bin 4, $C = 23.5 - 33.5\%$, $N_W = 146$					[8]
ϕ	2.51 ± 0.19				[25]/prel.
p		9.8 ± 0.9^a	273 ± 10^a	355 ± 35^a	[11] ^{c}
p		9.46 ± 0.23^e		345 ± 12	[8]
$\bar{p}$		0.80 ± 0.04^f	269 ± 29^a	355 ± 35^a	^{c}
$\bar{p}$	1.77 ± 0.07^d	0.80 ± 0.04^f		355 ± 29^a	[8]^c
d		0.12 ± 0.02^b	330 ± 33^b		[11]
Centrality Bin 3, $C = 12.5 - 23.5\%$, $N_W = 211$					[8]
ϕ	3.63 ± 0.36				[25]/prel.
p		14.5 ± 0.4^a	276 ± 9^a	362 ± 45^a	[11] ^{c}
p		14.79 ± 0.33^e		373 ± 10	[8]
$\bar{p}$		1.06 ± 0.05^f	274 ± 22^a	362 ± 45^a	^{c}
$\bar{p}$	2.44 ± 0.09^d	1.06 ± 0.05^f		341 ± 28^a	[8]^c
d		0.21 ± 0.03^b	416 ± 38^b		[11]
Centrality Bin 2, $C = 5 - 12.5\%$, $N_W = 288$					[8]
ϕ	5.60 ± 0.43				[25]/prel.
p		22.2 ± 0.6^a	308 ± 9^a	415 ± 16^a	[11] ^{c}
p		20.97 ± 0.52		375 ± 16	[8]
$\bar{p}$		1.37 ± 0.08^f	299 ± 15^a	415 ± 16^a	
$\bar{p}$	3.40 ± 0.14^d	1.37 ± 0.08^f		366 ± 30^a	[8]^c
d		0.27 ± 0.03^b	421 ± 44^b		[11]
Centrality Bin 1, $C = 0 - 5\%$, $N_W = 357$					[8]
ϕ	7.13 ± 0.62				[25]/prel.
p		29.6 ± 0.9^a	308 ± 9^a	413 ± 19^a	[11] ^{c}
p		27.51 ± 1.09^e		381 ± 19	[8]
$\bar{p}$		1.75 ± 0.12^f	291 ± 15^a	413 ± 19^a	^{c}
$\bar{p}$	$4.25 \pm 0.28d$	1.75 ± 0.12^f		405 ± 38^a	[8]^c
d		0.33 ± 0.03^b	425 ± 39^b		[11]

^{a} Rapidity interval $-0.51 < y < -0.11$

^{b} Rapidity interval $-0.91 < y < -0.41$

^{c} The yields are corrected for feed-down from weak decays.

^{d} M. Utvic, diploma thesis [28].

^{e} Rapidity interval $-0.12 < y < -0.08$

^{f} Rapidity interval $-0.12 < y < -0.28$, [8]

^{g} $<m_T>$ from macro producing the $<m_T>$ vs Nw plot in [8]

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5, $C = 33.5 - 43.5\%$, $N_W = 85 \pm 7.0$					[9]
Λ	$11.9 \pm 0.2 \pm 1.9$	$2.7 \pm 0.1 \pm 0.3^a$	$274 \pm 15 \pm 16^a$	$316 \pm 14 \pm 38^a$	[9] [b]
$\bar{\Lambda}$	$0.8 \pm 0.05 \pm 0.14$	$0.36 \pm 0.03 \pm 0.05^a$	$309 \pm 50 \pm 31^a$	$340 \pm 23 \pm 44^a$	[9] [b]
Centrality Bin 4, $C = 23.5 - 33.5\%$, $N_W = 128 \pm 8.0$					[9]
Λ	$19.7 \pm 0.3 \pm 3.2$	$4.4 \pm 0.1 \pm 0.5^a$	$303 \pm 12 \pm 18^a$	$353 \pm 15 \pm 42^a$	[9] [b]
$\bar{\Lambda}$	$1.4 \pm 0.1 \pm 0.2$	$0.54 \pm 0.04 \pm 0.07^a$	$302 \pm 34 \pm 30^a$	$345 \pm 27 \pm 45^a$	[9] [b]
Centrality Bin 3, $C = 12.5 - 23.5\%$, $N_W = 196 \pm 6.0$					[9]
Λ	$32.0 \pm 0.5 \pm 5.1$	$6.9 \pm 0.2 \pm 0.8^a$	$307 \pm 11 \pm 18^a$	$361 \pm 16 \pm 43^a$	[9] [b]
$\bar{\Lambda}$	$2.2 \pm 0.1 \pm 0.4$	$0.78 \pm 0.07 \pm 0.11^a$	$296 \pm 27 \pm 30^a$	$345 \pm 31 \pm 45^a$	[9] [b]
Centrality Bin 2, $C = 5 - 12.5\%$, $N_W = 281 \pm 4.0$					[9]
Λ	$45.9 \pm 1.0 \pm 7.3$	$10.0 \pm 0.4 \pm 1.2^a$	$296 \pm 14 \pm 18^a$	$354 \pm 21 \pm 43^a$	[9] [b]
$\bar{\Lambda}$	$3.0 \pm 0.3 \pm 0.5$	$0.92 \pm 0.14 \pm 0.12^a$	$372 \pm 62 \pm 37^a$	$443 \pm 109 \pm 58^a$	[9] [b]
Centrality Bin 1, $C = 0 - 5\%$, $N_W = 352 \pm 3.0$					[9]
Λ	$55.3 \pm 1.8 \pm 8.8$	$12.9 \pm 0.7 \pm 1.5^a$	$346 \pm 34 \pm 21^a$	$402 \pm 43 \pm 48^a$	[9] [b]
$\bar{\Lambda}$	$3.6 \pm 0.4 \pm 0.6$	$1.4 \pm 0.3 \pm 0.2^a$	$507 \pm 211 \pm 51^a$	$580 \pm 148 \pm 75^a$	[9] [b]

[a] Rapidity interval $|y| < 0.4$
[b] The yields are corrected for feed-down from weak decays.

hadron	mean multiplicity	$\frac{dn}{dy}_{y\approx0}$	$T_{y\approx0}$ [MeV]	$<m_T>-m_0$ [MeV]	Reference / Comments
Centrality Bin 5+6, $C = 33.5 - 65\%$, $N_W = 54 \pm 7$					[9]
Ξ^-	—	$0.17 \pm 0.03 \pm 0.02^a$	$261 \pm 37 \pm 16^a$	$333 \pm 29 \pm 40^a$	[9]
Centrality Bin 3+4, $C = 12.5 - 33.5\%$, $N_W = 164 \pm 8$					[9]
Ξ^-	—	$0.59 \pm 0.1 \pm 0.06^a$	$264 \pm 39 \pm 16^a$	$327 \pm 29 \pm 39^a$	[9]
Centrality Bin 1+2, $C = 0 - 12.5\%$, $N_W = 309 \pm 4$					[9]
Ξ^-	—	$1.43 \pm 0.33 \pm 0.16^a$	$244 \pm 41 \pm 15^a$	$317 \pm 39 \pm 38^a$	[9]
Centrality $C = 0 - 23.5\%$, $N_W = 262 \pm 4$					[9]
Ξ^-	—	$0.96 \pm 0.1 \pm 0.11^a$	$263 \pm 14 \pm 16^a$	$330 \pm 24 \pm 40^a$	[9]

[a] Rapidity interval $|y| < 0.5$

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