DATA for the paper " $The \Lambda \Lambda$ correlation function in Au+Au collisions at $\sqrt {s_{NN}}$= 200 GeV"

N. Shah (12/16/2014)

Data for figure -1

Mass	counts(lm)	err_lm	counts(antilm)	err_antilm
1.08062	30948	175.92	24748	157.315
1.08104	33041	181.772	25924	161.009
1.08146	35353	188.024	28132	167.726
1.08187	38694	196.708	30690	175.186
1.08229	41912	204.724	33370	182.675
1.08271	45447	213.183	36675	191.507
1.08313	48895	221.122	39475	198.683
1.08354	52297	228.685	42591	206.376
1.08396	55766	236.148	45879	214.194
1.08438	58803	242.493	48454	220.123
1.08479	62340	249.68	51889	227.792
1.08521	65117	255.18	54487	233.425
1.08563	68358	261.454	56854	238.441
1.08604	71524	267.44	59151	243.21
1.08646	73549	271.199	61518	248.028
1.08688	76254	276.141	64247	253.47
1.08729	78166	279.582	65883	256.677
1.08771	81248	285.04	67790	260.365
1.08813	82817	287.779	70244	265.036
1.08854	85070	291.668	71631	267.64
1.08896	87422	295.672	74038	272.099
1.08937	89238	298.727	75116	274.073
1.08979	91349	302.24	77741	278.821
1.09021	93395	305.606	78778	280.674
1.09062	94684	307.708	80248	283.281
1.09104	96903	311.292	81972	286.308
1.09146	98339	313.59	83709	289.325
1.09188	99841	315.976	85434	292.291
1.09229	101068	317.912	86538	294.173
1.09271	103556	321.801	87809	296.326
1.09313	104655	323.504	88737	297.888
1.09354	106255	325.968	89749	299.581
1.09396	107069	327.214	91356	302.252
1.09438	108088	328.767	91509	302.505
1.09479	109527	330.949	93156	305.215
1.09521	111345	333.684	94496	307.402
1.09563	112053	334.743	95688	309.335
1.09604	113384	336.725	95424	308.908
1.09646	114810	338.836	97482	312.221
1.09688	116217	340.906	97760	312.666
1.09729	116712	341.631	98884	314.458
1.09771	118254	343.881	100136	316.443
1.09813	119580	345.803	101267	318.225
1.09854	120188	346.681	102180	319.656

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Mass	counts(lm)	err_lm	counts(antilm)	err_antilm
1.09896	120903	347.711	102927	320.822
1.09937	123169	350.954	103804	322.186
1.09979	123591	351.555	104497	323.26
1.10021	125103	353.699	106424	326.227
1.10062	126691	355.937	107032	327.157
1.10104	126904	356.236	107858	328.417
1.10146	128235	358.099	109160	330.394
1.10187	129965	360.507	110507	332.426
1.10229	131057	362.018	111728	334.257
1.10271	132105	363.463	112459	335.349
1.10313	133785	365.766	113755	337.276
1.10354	135415	367.988	115140	339.323
1.10396	136328	369.226	116127	340.774
1.10438	137551	370.879	118216	343.826
1.10479	139746	373.826	119040	345.022
1.10521	141077	375.602	120925	347.743
1.10563	142385	377.339	123076	350.822
1.10604	144962	380.739	124407	352.714
1.10646	147734	384.362	126293	355.377
1.10688	150476	387.912	129088	359.288
1.10729	153619	391.943	133254	365.04
1.10771	158799	398.496	136389	369.309
1.10813	164214	405.233	139411	373.378
1.10854	171356	413.952	146496	382.748
1.10896	180968	425.403	154194	392.675
1.10938	193490	439.875	163901	404.847
1.10979	211123	459.481	178870	422.93
1.11021	236413	486.223	198743	445.806
1.11062	272901	522.399	228668	478.192
1.11104	323824	569.055	271770	521.316
1.11146	400748	633.047	334303	578.189
1.11187	517190	719.159	428895	654.901
1.11229	691414	831.513	568909	754.261
1.11271	952914	976.173	783482	885.145
1.11313	1.35068e+06	1162.19	1.10368e+06	1050.56
1.11354	1.95158e+06	1396.99	1.58356e+06	1258.4
1.11396	2.84262e+06	1686.01	2.29863e+06	1516.12
1.11438	4.11849e+06	2029.41	3.3099e+06	1819.31
1.11479	5.77422e+06	2402.96	4.60655e+06	2146.29
1.11521	7.26708e+06	2695.75	5.77984e+06	2404.13
1.11563	7.59823e+06	2756.49	6.03487e+06	2456.6
1.11604	6.51779e+06	2553	5.1597e+06	2271.5
1.11646	4.91023e+06	2215.9	3.87562e+06	1968.66
1.11688	3.53224e+06	1879.42	2.77747e+06	1666.57
1.11729	2.52199e+06	1588.08	1.97626e+06	1405.8

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Mass	counts(lm)	err_lm	counts(antilm)	err_antilm
1.11771	1.81153e+06	1345.93	1.4224e+06	1192.64
1.11813	1.32314e+06	1150.28	1.04189e+06	1020.73
1.11854	987363	993.661	780493	883.455
1.11896	755201	869.023	601609	775.635
1.11938	592668	769.849	474661	688.956
1.11979	480472	693.161	388650	623.418
1.12021	399623	632.157	328604	573.24
1.12062	342805	585.496	281979	531.017
1.12104	300615	548.284	250413	500.413
1.12146	270814	520.398	226575	475.999
1.12187	247526	497.52	209946	458.199
1.12229	231198	480.831	196936	443.775
1.12271	218246	467.168	186943	432.369
1.12313	207901	455.962	179368	423.519
1.12354	200556	447.835	173961	417.086
1.12396	194994	441.581	169519	411.727
1.12438	190870	436.887	165457	406.764
1.12479	187607	433.136	163455	404.296
1.12521	184348	429.358	161111	401.386
1.12563	181909	426.508	159059	398.822
1.12604	179135	423.243	158240	397.794
1.12646	178379	422.349	157364	396.691
1.12688	177382	421.167	155624	394.492
1.12729	175794	419.278	156167	395.18
1.12771	176211	419.775	154445	392.995
1.12813	175663	419.122	153988	392.413
1.12854	174315	417.51	154144	392.612
1.12896	174467	417.692	153005	391.159
1.12938	173786	416.876	154102	392.558
1.12979	173630	416.689	153219	391.432
1.13021	172861	415.766	153075	391.248
1.13062	172964	415.889	153464	391.745
1.13104	174133	417.292	152804	390.902
1.13146	173760	416.845	152984	391.132
1.13187	173844	416.946	153017	391.174
1.13229	173890	417.001	153958	392.375
1.13271	173568	416.615	153143	391.335
1.13312	173370	416.377	153727	392.08
1.13354	174239	417.419	153921	392.328
1.13396	174744	418.024	154674	393.286
1.13438	174646	417.907	154336	392.856
1.13479	174561	417.805	155022	393.728
1.13521	174504	417.737	155064	393.782
1.13563	175324	418.717	154753	393.387
1.13604	175471	418.893	154356	392.882

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Mass	counts(lm)	err_lm	counts(antilm)	err_antilm
1.13646	175215	418.587	154519	393.089
1.13688	175443	418.859	155890	394.829
1.13729	175803	419.289	155000	393.7
1.13771	175361	418.761	156105	395.101
1.13813	175215	418.587	155580	394.436
1.13854	175079	418.424	156090	395.082
1.13896	175401	418.809	155969	394.929
1.13938	175172	418.536	155156	393.898
1.13979	175971	419.489	155251	394.019
1.14021	175106	418.457	155438	394.256
1.14062	175272	418.655	155680	394.563
1.14104	175354	418.753	155203	393.958
1.14146	175517	418.947	155190	393.942
1.14187	174678	417.945	154677	393.29
1.14229	175391	418.797	155768	394.675
1.14271	175173	418.537	154709	393.331
1.14312	174501	417.733	154820	393.472
1.14354	175326	418.719	154334	392.854
1.14396	173977	417.106	154416	392.958
1.14437	174024	417.162	154242	392.737
1.14479	175035	418.372	153834	392.217
1.14521	174009	417.144	153606	391.926
1.14563	173551	416.595	153024	391.183
1.14604	172972	415.899	152879	390.997
1.14646	172160	414.922	152428	390.42
1.14688	172813	415.708	152475	390.48
1.14729	172539	415.378	151944	389.8
1.14771	172146	414.905	151733	389.529
1.14813	171237	413.808	151802	389.618
1.14854	170788	413.265	151223	388.874
1.14896	171149	413.702	150253	387.625
1.14938	170118	412.454	150706	388.209
1.14979	169132	411.257	150127	387.462

Data for figure – 2

Q (GeV/c)	C(Q) Lm-Lm	Err (Lm-Lm)	C(Q) antilm-antilm	Err(antilm-antilm)
0.01	0.891445	0.0840395	0.971208	0.109995
0.03	0.863259	0.031369	0.886744	0.0411495
0.05	0.859428	0.0186188	0.83008	0.0252539
0.07	0.939072	0.0145886	0.909608	0.0193831
0.09	0.925423	0.0111224	0.938454	0.0148041
0.11	0.920299	0.00915672	0.919495	0.0121407
0.13	0.938038	0.00786904	0.926209	0.0105485
0.15	0.947492	0.00693421	0.950833	0.00921455
0.17	0.95117	0.00614626	0.942179	0.00820921
0.19	0.945097	0.00550514	0.938471	0.0073114
0.21	0.97879	0.00516761	0.937763	0.00693374
0.23	0.968249	0.0046951	0.959937	0.00622269
0.25	0.980188	0.00440185	0.971432	0.00583368
0.27	0.978586	0.00409146	0.962594	0.0054427
0.29	0.971936	0.00380861	0.961083	0.00505663
0.31	0.975464	0.00360014	0.965513	0.00478042
0.33	0.979571	0.00342214	0.967176	0.00455307
0.35	0.977691	0.003245	0.960743	0.00432417
0.37	0.973112	0.00308898	0.973227	0.00409642
0.39	0.980933	0.00296918	0.964517	0.00395848
0.41	0.988312	0.00287449	0.974721	0.00380966
0.43	0.98524	0.00275519	0.982737	0.00365614
0.45	0.986523	0.00265764	0.97523	0.00353325
0.47	0.986795	0.00257037	0.980456	0.00341112
0.49	0.997091	0.00251426	0.979573	0.00334739
0.51	0.991225	0.00242741	0.972609	0.0032288
0.53	0.996562	0.00237181	0.986785	0.00314379
0.55	0.997619	0.00231237	0.980217	0.00307367
0.57	0.989585	0.00224079	0.984857	0.00296915
0.59	0.993281	0.00219497	0.977447	0.00291598
0.61	0.992599	0.00214873	0.978961	0.00284655
0.63	0.991838	0.00209808	0.983939	0.00278054
0.65	0.998764	0.00207066	0.986818	0.00274162
0.67	0.988684	0.00201315	0.986951	0.00266235
0.69	0.99738	0.00199032	0.98644	0.00264015
0.71	0.996689	0.00195862	0.993534	0.0025914
0.73	0.996284	0.0019244	0.986646	0.00255006
0.75	1.00144	0.00190311	0.989846	0.00252407
0.77	0.996904	0.00186824	0.988269	0.00247526
0.79	1.0003	0.00184854	0.990953	0.00244896
0.81	0.997934	0.00181866	0.984913	0.00241498
0.83	1.00151	0.0018036	0.987496	0.0023918
0.85	0.99644	0.00177289	0.993653	0.00234603

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Q (GeV/c)	C(Q) Lm-Lm	Err (Lm-Lm)	C(Q) antilm-antilm	Err(antilm-antilm)
0.87	0.996525	0.00175248	0.98356	0.00232383
0.89	1.00167	0.00174418	0.992665	0.00230804
0.91	1.00091	0.00172369	0.990304	0.00228303
0.93	0.997275	0.00169908	0.987089	0.00225393
0.95	0.998472	0.00168529	0.992265	0.00223101
0.97	1.00074	0.0016736	0.992198	0.00221787
0.99	1.00593	0.00166519	0.988873	0.00221227

Data for figure - 3

Q(GeV/c)	C(Q)	Stat_err	Sys_err	LL_noresidual	LL_withresidual
0.01	0.8228	0.0767992	0.118214	0.909636	0.835034
0.03	0.8775	0.0297943	0.116843	0.910942	0.8524685
0.05	0.855	0.0174406	0.0479224	0.9134897	0.879512
0.07	0.9129	0.0132806	0.0350589	0.9171532	0.906085
0.09	0.9356	0.0105106	0.0418513	0.9217586	0.9256351
0.11	0.9295	0.00860613	0.0253097	0.9270960	0.9367368
0.13	0.9256	0.00732562	0.0221106	0.932936	0.9411453
0.15	0.9463	0.00648223	0.0221893	0.9390461	0.94188
0.17	0.9505	0.00572692	0.0200541	0.9452055	0.943844
0.19	0.9417	0.00512124	0.0223172	0.9512183	0.951205
0.21	0.9618	0.00476733	0.0264969	0.956922	0.959835
0.23	0.9661	0.00436716	0.0273789	0.96219	0.965885
0.25	0.9803	0.00410732	0.0131275	0.96695	0.96983
0.27	0.9757	0.00379868	0.0238427	0.97115	0.972706
0.29	0.9691	0.0035437	0.0121333	0.974789	0.975055
0.31	0.9767	0.00335767	0.0150337	0.977886	0.97714
0.33	0.9826	0.00319313	0.0154463	0.980490	0.979087
0.35	0.9776	0.00301848	0.0106255	0.9826677	0.980939
0.37	0.9772	0.00289148	0.0154458	0.9844946	0.982722
0.39	0.9815	0.0027688	0.0127251	0.986054	0.984445
0.41	0.9874	0.00267598	0.0107529	0.9874315	0.986108
0.43	0.9916	0.00257775	0.0127466	0.9887008	0.987708
0.45	0.9892	0.00247993	0.0108048	0.989926	0.98924
0.47	0.9914	0.00240154	0.0110781	0.9911504	0.990710
0.49	0.9959	0.00234215	0.0109378	0.992395	0.992104

QM statistics was generated by

TF1 *fermistat = new TF1("fermistat","(1.0-0.5*exp(-x[0]*x[0]*3.13*3.13*25.0))",0,1);
Where R = 3.13 fm

Data for Figure 4

	$1/a_0$ (fm $^{-1}$)	$1/\|a_0\|$ (fm $^{-1}$)	r_{eff}
Lambda-Lambda (STAR)	$0.91\pm 0.31_{0.07}^{0.56}$	$0.91\pm 0.31_{0.07}^{0.56}$	$8.52\pm2.56_{0.74}^{2.09}$
Lambda-lambda (Nagara)	-1.74	1.74	6.45
Lambda-lambda (Nagara)	-1.30	1.30	6.59
Proton-Proton	-0.12814±0.00009	0.12814±0.00009	2.798±0.008
Neutron-Neutron	-0.059±0.002	0.059±0.002	2.8
Proton-Lambda (singlet)	-0.347	0.347	2.92
Proton-Lambda (triplet)	-0.602	0.602	3.78
Proton-Neutron (singlet)	-0.0411±0.002	0.0411±0.002	2.706
Proton-Neutron (triplet)	0.185	0.185	1.761