

$B^0 \rightarrow K^* \mu^- \mu^+$ results

Marcin Chrzęszcz¹

¹ University of Zurich

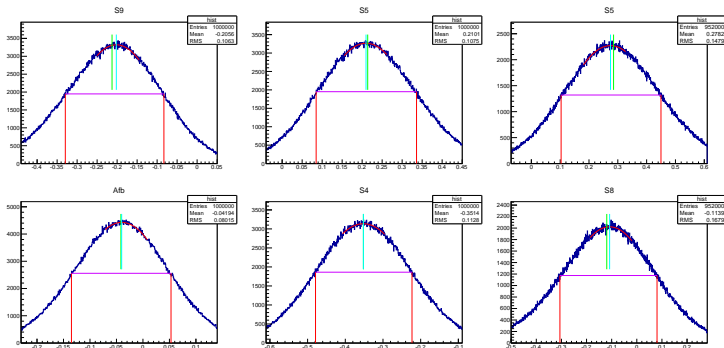


**University of
Zurich**^{UZH}

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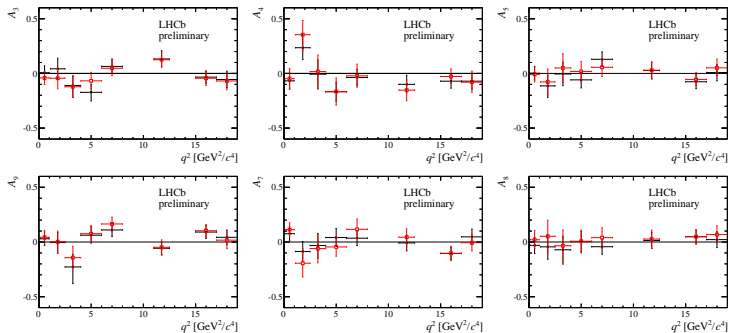
Bootstraps

- ▶ We are using bootstraps to evaluate the systematics.
- ▶ In total produced over 24.000.000 bootstraps ;)
- ▶ Two weeks of computing...



Asymmetries

- ▶ We are also measuring the angular asymmetries.
- ▶ Again errors for bootstraps.



- ▶ This was never ending story....
- ▶ Took me more then 3 weeks to evaluate all of those.
- ▶ The knowledge that they are all negligible didn't help at all.

q^2	A_3	A_4	A_5	$A(A_{FB})$	A_T	A_8	A_9	A_{6c}	A_{6c}
$0.1 < q^2 < 0.98$	0.0072	0.0127	0.0112	0.0723	0.0096	0.0118	0.0089	0.0157	0.007
$1.1 < q^2 < 2.0$	0.0025	0.0275	0.0082	0.0118	0.0058	0.0081	0.0098	0.0052	0.0018
$2.0 < q^2 < 3.0$	0.0015	0.0416	0.0084	0.0077	0.0027	0.0058	0.007	0.0039	0.0013
$3.0 < q^2 < 4.0$	0.0074	0.0454	0.0046	0.0061	0.0032	0.0026	0.0029	0.0014	0.004
$4.0 < q^2 < 5.0$	0.0051	0.0466	0.0045	0.0048	0.003	0.0012	0.0081	0.0089	0.003
$5.0 < q^2 < 6.0$	0.0038	0.0477	0.0056	0.0061	0.0028	0.007	0.0022	0.0031	0.0084
$6.0 < q^2 < 7.0$	0.007	0.0517	0.0062	0.0091	0.0046	0.0031	0.0055	0.005	0.0018
$7.0 < q^2 < 8.0$	0.0046	0.0583	0.0067	0.0114	0.0036	0.0023	0.0027	0.006	0.0021
$11.0 < q^2 < 11.75$	0.0081	0.0625	0.0131	0.0149	0.0019	0.0033	0.0031	0.0033	0.0032
$11.75 < q^2 < 12.5$	0.0078	0.0558	0.012	0.0142	0.0019	0.0033	0.0022	0.0031	0.0035
$15.0 < q^2 < 16.0$	0.0052	0.0072	0.0065	0.007	0.0036	0.0048	0.0067	0.0097	0.0031
$16.0 < q^2 < 17.0$	0.0057	0.0278	0.008	0.0057	0.0058	0.0049	0.004	0.0097	0.0031
$17.0 < q^2 < 18.0$	0.0099	0.0454	0.0153	0.007	0.0108	0.0035	0.0062	0.009	0.0029
$18.0 < q^2 < 19.0$	0.0105	0.0585	0.0146	0.0121	0.006	0.0103	0.0069	0.0073	0.0023
$1.1 < q^2 < 2.5$	0.0046	0.0306	0.0083	0.011	0.0057	0.0045	0.0057	0.0049	0.0017
$2.5 < q^2 < 4.0$	0.0088	0.045	0.005	0.0089	0.0018	0.0019	0.003	0.002	0.0057
$4.0 < q^2 < 6.0$	0.003	0.0472	0.0049	0.0093	0.0026	0.0041	0.0017	0.0022	0.0058
$6.0 < q^2 < 8.0$	0.0054	0.0551	0.0063	0.0104	0.0041	0.0027	0.004	0.0055	0.0019
$11.0 < q^2 < 12.5$	0.0079	0.0591	0.0125	0.0146	0.0015	0.0033	0.0027	0.0032	0.0033
$15.0 < q^2 < 17.0$	0.0047	0.0167	0.0055	0.0059	0.0026	0.0061	0.0098	0.0097	0.0031
$17.0 < q^2 < 19.0$	0.0098	0.0505	0.0141	0.0071	0.0128	0.0053	0.0035	0.0082	0.0027

- ▶ This was never ending story....
- ▶ Took me more then 3 weeks to evaluate all of those.
- ▶ The knowledge that they are all negligible didn't help at all.
- ▶ Please see the note. Wee have ~ 420 pages of super interesting numbers ;)

q^2	F_L	S_3	S_4	S_5	A_{FB}	S_7	S_8	S_9	S_{6c}	S_{6c}
$0.1 < q^2 < 0.98$	0.0259	0.0077	0.0147	0.0111	0.0719	0.0092	0.0093	0.0038	0.0158	0.0045
$1.1 < q^2 < 2.0$	0.0251	0.0071	0.0265	0.0093	0.0119	0.0047	0.0056	0.0005	0.007	0.0025
$2.0 < q^2 < 3.0$	0.0231	0.0073	0.0413	0.0086	0.0077	0.0021	0.0057	0.0032	0.0038	0.0014
$3.0 < q^2 < 4.0$	0.0228	0.0078	0.0455	0.0042	0.0023	0.0022	0.0022	0.0023	0.0006	0.0004
$4.0 < q^2 < 5.0$	0.0232	0.0073	0.0466	0.0035	0.0038	0.0014	0.0028	0.0012	0.001	0.0005
$5.0 < q^2 < 6.0$	0.0246	0.0087	0.0477	0.0042	0.0061	0.0019	0.0026	0.0008	0.003	0.001
$6.0 < q^2 < 7.0$	0.0253	0.0044	0.0517	0.0078	0.0092	0.0038	0.0022	0.0011	0.0055	0.0017
$7.0 < q^2 < 8.0$	0.0245	0.0047	0.0583	0.0071	0.0117	0.0034	0.0022	0.0011	0.008	0.0024
$11.0 < q^2 < 11.75$	0.0217	0.0081	0.0625	0.0131	0.0149	0.0019	0.0033	0.0031	0.0033	0.0032
$11.75 < q^2 < 12.5$	0.0184	0.0078	0.0558	0.012	0.0142	0.0019	0.0033	0.0022	0.0031	0.0035
$15.0 < q^2 < 16.0$	0.0133	0.006	0.0067	0.0055	0.0088	0.0017	0.0045	0.0045	0.0019	0.0038
$16.0 < q^2 < 17.0$	0.0127	0.0067	0.0294	0.0096	0.0072	0.0054	0.0048	0.0038	0.0016	0.0034
$17.0 < q^2 < 18.0$	0.0166	0.0107	0.0454	0.0154	0.0075	0.0108	0.0006	0.0016	0.0016	0.0027
$18.0 < q^2 < 19.0$	0.0131	0.0116	0.0585	0.0146	0.0118	0.0055	0.0102	0.0067	0.0051	0.0014
$1.1 < q^2 < 2.5$	0.0246	0.0066	0.0303	0.009	0.0111	0.0042	0.0043	0.0012	0.0063	0.0023
$2.5 < q^2 < 4.0$	0.0228	0.0081	0.0451	0.0048	0.0052	0.0017	0.0014	0.0028	0.0013	0.0006
$4.0 < q^2 < 6.0$	0.0239	0.0079	0.0471	0.0036	0.0093	0.0008	0.0011	0.0008	0.0022	0.0008
$6.0 < q^2 < 8.0$	0.0249	0.0045	0.0551	0.0074	0.0105	0.0036	0.002	0.0011	0.0069	0.0021
$11.0 < q^2 < 12.5$	0.0189	0.0079	0.0591	0.0125	0.0146	0.0015	0.0033	0.0027	0.0032	0.0033
$15.0 < q^2 < 17.0$	0.0119	0.0057	0.0173	0.0095	0.0077	0.0024	0.0046	0.0041	0.0016	0.0036
$17.0 < q^2 < 19.0$	0.0162	0.0108	0.0505	0.0169	0.0072	0.0087	0.0038	0.002	0.0084	0.0022