



s2tw pseudodata

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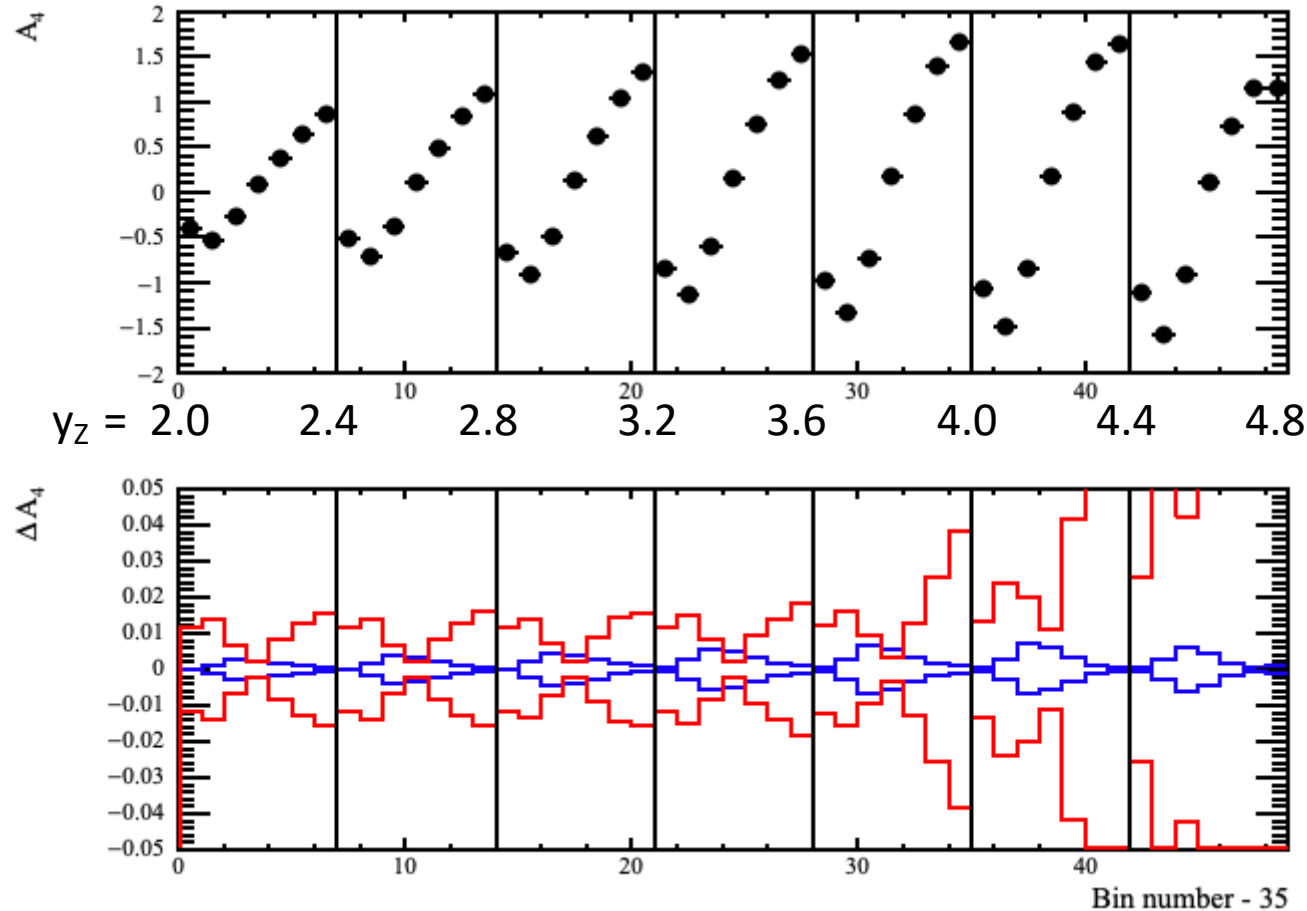
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Details

- NNPDF31_nnlo_as_0118_hessian
- Bins of width 0.4 in $|y|$
- 7 bins in dimuon invariant mass
 - {50, 66, 76, 86, 96, 106, 116, 150 GeV}
- Find A_4 (Born Level) for $s_{2tw} = \{0.23100, 0.23150, 0.23200\}$
- Using POWHEG + Pythia8; LO EW, NLO(+PS) QCD

LHCb acceptance



- Bins in mass and rapidity.
- Excellent agreement (not shown) between Hessian and MC PDF uncertainties.
- A_4 values at:
[/afs/cern.ch/user/w/wbarter/public/ForEWWG](https://afs.cern.ch/user/w/wbarter/public/ForEWWG)

Agreement between different central values

- Consider overlap region: $2.0 < y < 2.4$
- Using: [Aleko](#); [Aaron](#)

	Aaron			Aleko			Will		
Bin	A_4	Stat unc	Shift (s2tw)	A_4	Stat unc	Shift (s2tw)	A_4	Stat unc	Shift (s2tw)
36	-0.3892	3.90E-05	0.0002	-0.4055	0.0007	-0.0001	-0.3951	0.0044	-0.0001
37	-0.5326	7.59E-05	0.0011	-0.5287	0.0008	0.0013	-0.5365	0.0058	0.0013
38	-0.2752	2.89E-05	0.0023	-0.2727	0.0005	0.0027	-0.2710	0.0035	0.0027
39	0.0811	8.16E-06	0.0024	0.0810	0.0001	0.0024	0.0805	0.0009	0.0024
40	0.3721	4.27E-05	0.0020	0.3708	0.0005	0.0016	0.3722	0.0035	0.0016
41	0.6375	6.63E-05	0.0014	0.6379	0.0011	0.0008	0.6446	0.0076	0.0009
42	0.8583	9.00E-05	0.0009	0.8545	0.0011	0.0005	0.8662	0.0078	0.0005

Bin around
Z peak

Agreement between different central values

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Bin around
Z peak

Bin	Aleko - Aaron		Aleko - Will		Aaron - Will	
	ΔA_4	Stat unc	ΔA_4	Stat unc	ΔA_4	Stat unc
36	-0.0163	0.0007	-0.0104	0.0044	0.0059	0.0044
37	0.0039	0.0008	0.0078	0.0058	0.0039	0.0058
38	0.0025	0.0005	-0.0017	0.0035	-0.0042	0.0035
39	-0.0001	0.0001	0.0005	0.0009	0.0005	0.0009
40	-0.0013	0.0005	-0.0014	0.0035	-0.0002	0.0035
41	0.0004	0.0011	-0.0067	0.0076	-0.0072	0.0076
42	-0.0038	0.0011	-0.0117	0.0078	-0.0079	0.0078

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