D*lν Analysis: Search for a possible selection bias

Fit to pure−signal MC, SP3 generic B0B0bar

(MC truth for Δt and tag)

		Nominal selection, no vertex quality cuts	No selection, D*l in the event	No selection, almost generic
ΔZ fit	τ=	1.5385+−0.0006 ps	1.5415+−0.0031 ps	1.5387+−0.0018 ps
	Δm=	0.4639+−0.0006 /ps	0.4629+−0.0008/ps	0.4616+−0.0005/ps
	Nevts	180K (Failed)	384K	1065K
Δt fit	τ=	1.5513+−0.0047 ps	1.5466+−0.0036 ps	1.5440+−0.0022 ps
	Δm=	0.4709+−0.0014 /ps	0.4687+−0.0010 /ps	0.4679+−0.0007/ps

(generated τ=1.547 ps, Δm=0.473 /ps)

Effect almost reabsorbed using the right fit variable.

SP4 generic B0B0bar

Δt fit , nominal selection, no vertex quality cuts

	2000 sample	2001 sample	2002 sample
τ=	1.5525+–0.0028 ps	1.5469+–0.0021 ps	1.5508+–0.0033 ps
Δm=	0.4705+–0.0009 /ps	0.4696+–0.0007 /ps	0.4699+–0.0011 /ps
Nevt=	479K	854K	335K

Results in agreement with SP3 MC

No bias on τ

Perhaps a –0.003 /ps analysis bias on Δm

(As shown in London, fits on toy MC are not affected)