

Expectation of peaking background events

- update ϵ_{2B}

Channel	$B_{2B}(\%)$ checked	$\epsilon_{2B}(\%)(12)$ updated	$\epsilon_{trig}(\%)$	Event number(12)	Event number(09)	Event number 12/09
J/ $\Psi \rightarrow \mu^+\mu^-$	5.961 ± 0.033	6.24 ± 0.02	99.4 ± 0.1	229196 ± 1485	65558 ± 1388	3.50
J/ $\Psi \rightarrow e^+e^-$	5.971 ± 0.032	6.32 ± 0.02	99.4 ± 0.1	232524 ± 1466	65668 ± 1405	3.54
J/ $\Psi \rightarrow nnbar$	0.209 ± 0.016	6.13 ± 0.02	99.4 ± 0.1	7894 ± 605	2361 ± 997	3.34
J/ $\Psi \rightarrow ppbar$	0.2020 ± 0.0029	2.64 ± 0.02	99.4 ± 0.1	3286 ± 53	999 ± 28	3.29
Total (total/anything)				472901 (0.763%)	134586 ± 2919 (0.72%)	3.51
N_{others} (others/peaking)				16163 (0.038)	3877 (0.029)	4.17
$N_{anything}$				(61989.4 ± 8.9) $*10^3$	(18658.1 ± 5.0) $*10^3$	3.32
$N_{invisible}$				397611 ± 684	137770 ± 406	2.89

$\Psi(2S)$ data 12/09:
341/106=3.22

$$\begin{aligned}
 & N(J/\Psi \rightarrow invisible) \\
 &= N_{invisible} - N_{peaking} - N_{others} \times \epsilon_{trig} \\
 &= 397611 - 472901 - 16163 \times 0.994 \\
 &= -91356 \quad (-670 \text{ in } 2009)
 \end{aligned}$$

$$n_{sig} = 396332 \pm 686$$

(given by Qian)