

$P_{c\bar{c}s}(4459)^0$  $I(J^P) = 0(?^?)$  Status: \*

OMITTED FROM SUMMARY TABLE

 $P_{c\bar{c}s}(4459)^0$  MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>4466</b> $\begin{smallmatrix} +6 \\ -5 \end{smallmatrix}$				<b>OUR AVERAGE</b> Error includes scale factor of 1.8.
4471.7 $\pm$ 4.8 $\pm$ 0.6	21	<sup>1</sup> ADACHI	25A BELL	$\Upsilon(1S/2S) \rightarrow J/\psi \Lambda$ incl.
4458.8 $\pm$ 2.9 $\begin{smallmatrix} +4.7 \\ -1.1 \end{smallmatrix}$	1.8k	<sup>2</sup> AAIJ	21AO LHCB	$\Xi_b^- \rightarrow J/\psi \Lambda K^-$
<sup>1</sup> ADACHI 25A sees evidence for the $P_{c\bar{c}s}(4459)$ at $2.8\sigma$ global significance.				
<sup>2</sup> AAIJ 21AO sees evidence for the $P_{c\bar{c}s}(4459)$ at $3.1\sigma$ global significance.				

 $P_{c\bar{c}s}(4459)^0$  WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>19</b> $\begin{smallmatrix} +8 \\ -7 \end{smallmatrix}$				<b>OUR AVERAGE</b>
22 $\pm$ 13 $\pm$ 3	21	<sup>1</sup> ADACHI	25A BELL	$\Upsilon(1S/2S) \rightarrow J/\psi \Lambda$ incl.
17.3 $\pm$ 6.5 $\begin{smallmatrix} +8.0 \\ -5.7 \end{smallmatrix}$	1.8k	<sup>2</sup> AAIJ	21AO LHCB	$\Xi_b^- \rightarrow J/\psi \Lambda K^-$
<sup>1</sup> ADACHI 25A sees evidence for the $P_{c\bar{c}s}(4459)$ at $2.8\sigma$ global significance.				
<sup>2</sup> AAIJ 21AO sees evidence for the $P_{c\bar{c}s}(4459)$ at $3.1\sigma$ global significance.				

 $P_{c\bar{c}s}(4459)^0$  DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $J/\psi \Lambda$	seen
$\Gamma_2$ $\Lambda_c^+ D_s^-$	not seen

 $P_{c\bar{c}s}(4459)^0$  BRANCHING RATIOS

$\Gamma(J/\psi \Lambda)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$			
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
seen	21	<sup>1</sup> ADACHI	25A BELL	$\Upsilon(1S/2S) \rightarrow J/\psi \Lambda$ incl.
<b>seen</b>	1.8k	<sup>2</sup> AAIJ	21AO LHCB	$\Xi_b^- \rightarrow J/\psi \Lambda K^-$
<sup>1</sup> ADACHI 25A sees evidence for the $P_{c\bar{c}s}(4459)$ at $2.8\sigma$ global significance.				
<sup>2</sup> AAIJ 21AO sees evidence for the $P_{c\bar{c}s}(4459)$ at $3.1\sigma$ global significance.				

$\Gamma(\Lambda_c^+ D_s^-)/\Gamma_{\text{total}}$	$\Gamma_2/\Gamma$		
VALUE	DOCUMENT ID	TECN	COMMENT
<b>not seen</b>	<sup>1</sup> AAIJ	25AK LHCB	$pp$ at 13 TeV

<sup>1</sup> An analysis of  $\Lambda_b^0 \rightarrow \Lambda_c^+ D_s^- K^+ K^-$  decays, AAIJ 25AK reports  $B(\Lambda_b^0 \rightarrow P_{c\bar{c}s}(4459)^0 K^+ K^-, P_{c\bar{c}s} \rightarrow \Lambda_c^+ D_s^-) / B(\Lambda_b^0 \rightarrow \Lambda_c^+ D_s^- K^+ K^-) < 0.20$  at 95% CL.

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### $P_{c\bar{c}s}(4459)^0$ REFERENCES

AAIJ	25AK PR D112 052013	R. Aaij <i>et al.</i>	(LHCb Collab.)
ADACHI	25A PRL 135 041901	I. Adachi <i>et al.</i>	(BELLE and BELLE II Collab.)
AAIJ	21AO SCIB 66 1278	R. Aaij <i>et al.</i>	(LHCb Collab.)

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