

# $D_1(2420)^\pm$

$I(J^P) = \frac{1}{2}(??)$   
 $I$  needs confirmation.

OMITTED FROM SUMMARY TABLE  
 Seen in  $D^*(2007)^0 \pi^+$ .  $J^P = 0^+$  ruled out.

## $D_1(2420)^\pm$ MASS

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>2427 ± 5 OUR AVERAGE</b> Error includes scale factor of 2.0.				
2425 ± 2 ± 2	146	BERGFELD	94B CLE2	$e^+ e^- \rightarrow D^{*0} \pi^+ X$
2443 ± 7 ± 5	190	ANJOS	89C TPS	$\gamma N \rightarrow D^0 \pi^+ X^0$

## $m_{D_1^*(2420)^\pm} - m_{D_1^*(2420)^0}$

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>4^{+2}_{-3} \pm 3</math></b>	BERGFELD	94B CLE2	$e^+ e^- \rightarrow$ hadrons

## $D_1(2420)^\pm$ WIDTH

<u>VALUE (MeV)</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b>28 ± 8 OUR AVERAGE</b>				
$26^{+8}_{-7} \pm 4$	146	BERGFELD	94B CLE2	$e^+ e^- \rightarrow D^{*0} \pi^+ X$
41 ± 19 ± 8	190	ANJOS	89C TPS	$\gamma N \rightarrow D^0 \pi^+ X^0$

## $D_1(2420)^\pm$ DECAY MODES

$D_1^*(2420)^-$  modes are charge conjugates of modes below.

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $D^*(2007)^0 \pi^+$	seen
$\Gamma_2$ $D^0 \pi^+$	not seen

## $D_1(2420)^\pm$ BRANCHING RATIOS

$\Gamma(D^*(2007)^0 \pi^+)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$
<u>VALUE</u>	<u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u>
<b>seen</b>	ANJOS 89C TPS $\gamma N \rightarrow D^0 \pi^+ X^0$

$\Gamma(D^0 \pi^+)/\Gamma(D^*(2007)^0 \pi^+)$	$\Gamma_2/\Gamma_1$
<u>VALUE</u>	<u>CL%</u> <u>DOCUMENT ID</u> <u>TECN</u> <u>COMMENT</u>

• • • We do not use the following data for averages, fits, limits, etc. • • •

<0.18	90	BERGFELD	94B CLE2	$e^+ e^- \rightarrow$ hadrons
-------	----	----------	----------	-------------------------------

## $D_1(2420)^\pm$ REFERENCES

BERGFELD	94B	PL B340 194	T. Bergfeld <i>et al.</i>	(CLEO Collab.)
ANJOS	89C	PRL 62 1717	J.C. Anjos <i>et al.</i>	(FNAL E691 Collab.)

## OTHER RELATED PAPERS

SEMENOV	99	SPU 42 847	S.V. Semenov
		Translated from UFN 42 937.	

---