

$D_1(2420)^\pm$
 $I(J^P) = \frac{1}{2}(??)$
 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>
2427 ± 5 OUR AVERAGE	Error includes scale factor of 2.0.			
$2425 \pm 2 \pm 2$	146	BERGFELD	94B CLE2	$e^+ e^- \rightarrow D^{*0} \pi^+ X$
$2443 \pm 7 \pm 5$	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>
$4_{-3}^{+2} \pm 3$	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>
28 ± 8 OUR AVERAGE				
$26_{-7}^{+8} \pm 4$	146	BERGFELD	94B CLE2	$e^+ e^- \rightarrow D^{*0} \pi^+ X$
$41 \pm 19 \pm 8$	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 (Γ_i/Γ)
Γ_1 $D^*(2007)^0 \pi^+$	seen
Γ_2 $D^0 \pi^+$	not seen

 $D_1(2420)^\pm$ BRANCHING RATIOS

<u>$\Gamma(D^*(2007)^0 \pi^+)/\Gamma_{\text{total}}$</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	Γ_1/Γ
seen	ANJOS	89C TPS	$\gamma N \rightarrow D^0 \pi^+ X^0$	

<u>$\Gamma(D^0 \pi^+)/\Gamma(D^*(2007)^0 \pi^+)$</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>	Γ_2/Γ_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	+Eisenstein, Gollin+	(CLEO Collab.)
ANJOS	89C	PRL 62 1717	+Appel+	(FNAL E691 Collab.)
