$D_1(2420)^{\pm}$

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

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

$D_1(2420)^{\pm}$ MASS

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

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

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
$\mathbf{4^{+2}_{-3}\pm3}$	BERGFELD	94B	CLE2	$e^+e^- \to$ hadrons

$D_1(2420)^{\pm}$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
28± 8 OUR AVERAGE					
$26^{+8}_{-7}\pm4$	146	BERGFELD	94B	CLE2	$e^+e^- \to D^{*0}\pi^+X$
41±19±8	190	ANJOS	89C	TPS	$\gamma N \to D^0\pi^+X^0$

$D_1(2420)^{\pm}$ 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

$\Gamma(D^*(2007)^0\pi^+)/\Gamma_{total}$ — Γ_1/Γ

VALUE	DOCUMENT ID		TECN	COMMENT
seen	ANJOS	89C	TPS	$\gamma N \to D^0\pi^+X^0$

$\Gamma(D^0\pi^+)/\Gamma(D^*(2007)^0\pi^+)$ — Γ_2/Γ_1

VALUE	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
<0.18	90	BERGFELD	94B	CLE2	$e^+e^- \to$ hadrons

$D_1(2420)^{\pm}$ REFERENCES

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

OTHER RELATED PAPERS

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