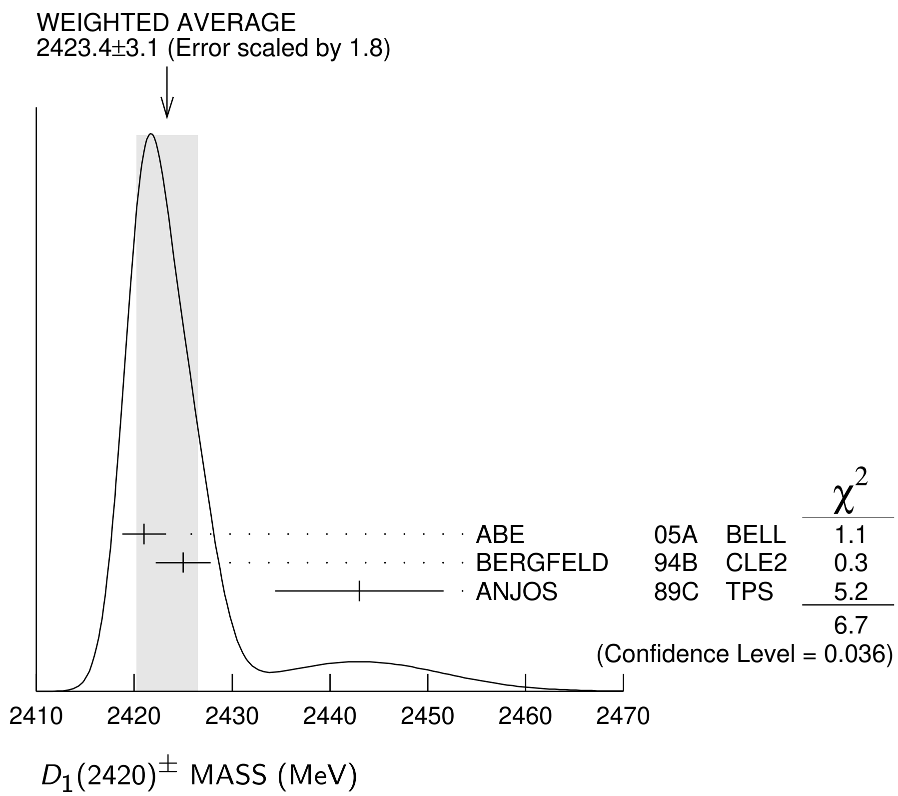
$D_1(2420)^{\pm}$

$I(J^P) = \frac{1}{2}(?^?)$
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*
2423.4±3.1 OUR AVERAGE	Error includes scale factor of 1.8. See the ideogram below.				
2421 ±2 ±1	124	ABE	05A	BELL	$\overline{B}^0 \to D^+ \pi^+ \pi^- \pi^-$
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*
$\mathbf{4^{+2}_{-3}\pm 3}$	BERGFELD	94B	CLE2	$e^+ e^- \to$ hadrons

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

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
25± 6 OUR AVERAGE					
$21 \pm 5 \pm 8$	124	ABE	05A	BELL	$\overline{B}^0 \rightarrow D^+ \pi^+ \pi^- \pi^-$
$26^{+8}_{-7} \pm 4$	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	$D^+ \pi^+ \pi^-$	seen
Γ_3	$D^+ \rho^0$	
Γ_4	$D^+ f_0(600)$	
Γ_5	$D_0^*(2400)^0 \pi^+$	
Γ_6	$D^0 \pi^+$	not seen
Γ_7	$D^{*+} \pi^+ \pi^-$	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	$\gamma N \rightarrow D^0 \pi^+ X^0$

$\Gamma(D^0 \pi^+)/\Gamma(D^*(2007)^0 \pi^+)$ — Γ_6/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	$e^+ e^- \rightarrow$ hadrons

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

ABE	05A	PRL 94 221805	K. Abe *et al.*	(BELLE Collab.)
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

CLOSE	05C	PR D72 094004	F.E. Close, E.S. Swanson	(OXFTP)
SEMENOV	99	SPU 42 847 Translated from UFN 42 937.	S.V. Semenov	