CHARMED MESONS
($C = \pm1$)

$D^+ = c\overline{d}$, $D^0 = c\overline{u}$, $\overline{D}^0 = \overline{c}\,u$, $D^- = \overline{c}\,d$, similarly for D^*'s

$D^\pm$

$I(J^P) = \frac{1}{2}(0^-)$

Mass $m = 1869.4 \pm 0.4$ MeV
Mean life $\tau = (1.057 \pm 0.015) \times 10^{-12}$ s
$c\tau = 317\ \mu$m

D^- modes are charge conjugates of the modes below.

D^+ DECAY MODES		Fraction (Γ_i/Γ)	Scale factor/ Confidence level	p (MeV/c)
Inclusive modes				
e^+ anything		(17.2 ± 1.9) %		–
K^- anything		(24.2 ± 2.8) %	S=1.4	–
$\overline{K}^0$ anything + K^0 anything		(59 ± 7) %		–
K^+ anything		(5.8 ± 1.4) %		–
η anything	[gg]	< 13 %	CL=90%	–
Leptonic and semileptonic modes				
$\mu^+\nu_\mu$		$< 7.2 \times 10^{-4}$	CL=90%	932
$\overline{K}^0$ "e^+" ν_e	[hh]	(6.7 ± 0.8) %		868
$\quad\overline{K}^0 e^+\nu_e$		(6.6 ± 0.9) %		868
$\quad\overline{K}^0\mu^+\nu_\mu$		($7.0\ ^{+3.0}_{-2.0}$) %		865
$\overline{K}^0\ell^+\nu_\ell$		(6.7 ± 3.5) %		–
$K^-\pi^+e^+\nu_e$		($4.2\ ^{+0.9}_{-0.7}$) %		863
$\quad\overline{K}^*(892)^0 e^+\nu_e \times B(\overline{K}^{*0} \to K^-\pi^+)$		(3.2 ± 0.33) %		720
$\quad K^-\pi^+e^+\nu_e$ nonresonant		$< 7 \times 10^{-3}$	CL=90%	863
$K^-\pi^+\mu^+\nu_\mu$		(3.2 ± 1.7) %		851
$\quad\overline{K}^*(892)^0\mu^+\nu_\mu \times B(\overline{K}^{*0} \to K^-\pi^+)$		(3.0 ± 0.4) %		715
$\quad K^-\pi^+\mu^+\nu_\mu$ nonresonant		(2.7 ± 1.1) $\times 10^{-3}$		851
$(\overline{K}^*(892)\pi)^0 e^+\nu_e$		< 1.2 %	CL=90%	714
$(\overline{K}\pi\pi)^0 e^+\nu_e$ non-$\overline{K}^*(892)$		$< 9 \times 10^{-3}$	CL=90%	846
$K^-\pi^+\pi^0\mu^+\nu_\mu$		$< 1.4 \times 10^{-3}$	CL=90%	825
$\pi^0\ell^+\nu_\ell$	[ii]	(5.7 ± 2.2) $\times 10^{-3}$		–
Fractions of some of the following modes with resonances have already appeared above as submodes of particular charged-particle modes.				
$\overline{K}^*(892)^0$ "e^+" ν_e	[hh]	(4.8 ± 0.4) %		720
$\quad\overline{K}^*(892)^0 e^+\nu_e$		(4.8 ± 0.5) %		720
$\quad\overline{K}^*(892)^0\mu^+\nu_\mu$		(4.5 ± 0.6) %	S=1.1	715
$\rho^0 e^+\nu_e$		$< 3.7 \times 10^{-3}$	CL=90%	776
$\rho^0\mu^+\nu_\mu$		($2.0\ ^{+1.5}_{-1.3}$) $\times 10^{-3}$		772
$\phi e^+\nu_e$		< 2.09 %	CL=90%	657
$\phi\mu^+\nu_\mu$		< 3.72 %	CL=90%	651
$\eta'(958)\mu^+\nu_\mu$		$< 9 \times 10^{-3}$	CL=90%	684
Hadronic modes with one or three K's				
$\overline{K}^0\pi^+$		(2.74 ± 0.29) %		862
$K^-\pi^+\pi^+$	[jj]	(9.1 ± 0.6) %		845
$\quad\overline{K}^*(892)^0\pi^+ \times B(\overline{K}^{*0} \to K^-\pi^+)$		(1.5 ± 0.3) %		712
$\quad\overline{K}_0(1430)^0\pi^+ \times B(\overline{K}^*(1430)^0 \to K^-\pi^+)$		(2.3 ± 0.3) %		368
$\quad\overline{K}^*(1680)^0\pi^+ \times B(\overline{K}^*(1680)^0 \to K^-\pi^+)$		(2.6 ± 1.3) $\times 10^{-3}$		65
$\quad K^-\pi^+\pi^+$ nonresonant		(7.3 ± 1.4) %		845
$\overline{K}^0\pi^+\pi^0$	[jj]	(9.7 ± 3.0) %	S=1.1	845
$\quad\overline{K}^0\rho^+$		(6.6 ± 2.5) %		680
$\quad\overline{K}^*(892)^0\pi^+ \times B(\overline{K}^{*0} \to \overline{K}^0\pi^0)$		(0.7 ± 0.2) %		712
$\quad\overline{K}^0\pi^+\pi^0$ nonresonant		(1.3 ± 1.1) %		845
$K^-\pi^+\pi^+\pi^0$	[jj]	(6.4 ± 1.1) %		816
$\quad\overline{K}^*(892)^0\rho^+$ total $\times B(\overline{K}^{*0} \to K^-\pi^+)$		(1.4 ± 0.9) %		423
$\quad\overline{K}_1(1400)^0\pi^+ \times B(\overline{K}_1(1400)^0 \to K^-\pi^+\pi^0)$		(2.2 ± 0.6) %		390
$\quad K^-\rho^+\pi^+$ total		(3.1 ± 1.1) %		616
$\quad\overline{K}^*(892)^0\pi^+\pi^0$ total $\times B(\overline{K}^{*0} \to K^-\pi^+)$		(4.5 ± 0.9) %		687
$\quad\quad\overline{K}^*(892)^0\pi^+\pi^0$ 3-body $\times B(\overline{K}^{*0} \to K^-\pi^+)$		(2.8 ± 0.9) %		687
$\quad K^*(892)^-\pi^+\pi^+$ 3-body $\times B(K^{*-} \to K^-\pi^0)$		(1.4 ± 0.6) %		688
$\quad K^-\pi^+\pi^+\pi^0$ nonresonant	[kk]	(1.2 ± 0.6) %		816
$\overline{K}^0\pi^+\pi^+\pi^-$	[jj]	(7.0 ± 1.0) %		814
$\quad\overline{K}^0 a_1(1260)^+ \times B(a_1(1260)^+ \to \pi^+\pi^+\pi^-)$		(4.0 ± 0.8) %		328
$\quad\overline{K}_1(1400)^0\pi^+ \times B(\overline{K}_1(1400)^0 \to \overline{K}^0\pi^+\pi^-)$		(2.2 ± 0.6) %		390
$\quad K^*(892)^-\pi^+\pi^+$ 3-body $\times B(K^{*-} \to \overline{K}^0\pi^-)$		(1.4 ± 0.6) %		688
$\quad\overline{K}^0\rho^0\pi^+$ total		(4.2 ± 0.9) %		614
$\quad\overline{K}^0\pi^+\pi^+\pi^-$ nonresonant		(8 ± 4) $\times 10^{-3}$		814
$K^-\pi^+\pi^+\pi^+\pi^-$		(8.2 ± 1.4) $\times 10^{-3}$		772
$\quad\overline{K}^*(892)^0\pi^+\pi^+\pi^- \times B(\overline{K}^{*0} \to K^-\pi^+)$		(6.8 ± 1.8) $\times 10^{-3}$		642
$\quad\quad\overline{K}^*(892)^0\rho^0\pi^+ \times B(\overline{K}^{*0} \to K^-\pi^+)$		(5.1 ± 2.2) $\times 10^{-3}$		242
$K^-\pi^+\pi^+\pi^0\pi^0$		($2.2\ ^{+5.0}_{-0.9}$) %		775
$\overline{K}^0\pi^+\pi^+\pi^-\pi^0$		($5.4\ ^{+3.0}_{-1.4}$) %		773
$\overline{K}^0\pi^+\pi^+\pi^+\pi^-\pi^-$		(8 ± 7) $\times 10^{-4}$		714
$K^-\pi^+\pi^+\pi^+\pi^-\pi^0$		(2.0 ± 1.8) $\times 10^{-3}$		718
$\overline{K}^0\overline{K}^0K^+$		(3.1 ± 0.7) %		545
Fractions of some of the following modes with resonances have already appeared above as submodes of particular charged-particle modes.				
$\overline{K}^0\rho^+$		(6.6 ± 2.5) %		680
$\overline{K}^0 a_1(1260)^+$		(8.1 ± 1.7) %		328
$\overline{K}^0 a_2(1320)^+$		$< 3 \times 10^{-3}$	CL=90%	199
$\overline{K}^*(892)^0\pi^+$		(2.2 ± 0.4) %		712
$\overline{K}^*(892)^0\rho^+$ total		(2.1 ± 1.4) %		423
$\quad\overline{K}^*(892)^0\rho^+$ S-wave	[kk]	(1.7 ± 1.6) %		423
$\quad\overline{K}^*(892)^0\rho^+$ P-wave		$< 1 \times 10^{-3}$	CL=90%	423
$\quad\overline{K}^*(892)^0\rho^+$ D-wave		(10 ± 7) $\times 10^{-3}$		423
$\quad\overline{K}^*(892)^0\rho^+$ D-wave longitudinal		$< 7 \times 10^{-3}$	CL=90%	423
$\overline{K}_1(1270)^0\pi^+$		$< 7 \times 10^{-3}$	CL=90%	487
$\overline{K}_1(1400)^0\pi^+$		(5.0 ± 1.3) %		390
$\overline{K}^*(1410)^0\pi^+$		$< 7 \times 10^{-3}$	CL=90%	382
$\overline{K}_0^*(1430)^0\pi^+$		(3.4 ± 0.4) %		368
$\overline{K}^*(1680)^0\pi^+$		(1.0 ± 0.5) %		65
$\overline{K}^*(892)^0\pi^+\pi^0$ total		(6.7 ± 1.4) %		687
$\quad\overline{K}^*(892)^0\pi^+\pi^0$ 3-body		(4.2 ± 1.4) %		687
$K^*(892)^-\pi^+\pi^+$ 3-body		(2.1 ± 0.9) %		688
$K^-\rho^+\pi^+$ total		(3.1 ± 1.1) %		616
$\quad K^-\rho^+\pi^+$ 3-body		(1.1 ± 0.4) %		616
$\overline{K}^0\rho^0\pi^+$ total		(4.2 ± 0.9) %	CL=90%	614
$\quad\overline{K}^0\rho^0\pi^+$ 3-body		(5 ± 5) $\times 10^{-3}$		614
$\overline{K}^0 f_0(980)\pi^+$		$< 5 \times 10^{-3}$	CL=90%	461
$\overline{K}^*(892)^0\pi^+\pi^+\pi^-$		(1.02 ± 0.27) %		642
$\overline{K}^*(892)^0\rho^0\pi^+$		(7.7 ± 3.3) $\times 10^{-3}$		242
Pionic modes				
$\pi^+\pi^0$		(2.5 ± 0.7) $\times 10^{-3}$		925
$\pi^+\pi^+\pi^-$		(3.2 ± 0.6) $\times 10^{-3}$		908
$\quad\rho^0\pi^+$		$< 1.4 \times 10^{-3}$	CL=90%	769
$\quad\pi^+\pi^+\pi^-$ nonresonant		(2.5 ± 0.7) $\times 10^{-3}$		908
$\pi^+\pi^+\pi^-\pi^0$		($1.9\ ^{+1.5}_{-1.2}$) %		883
$\quad\eta\pi^+ \times B(\eta \to \pi^+\pi^-\pi^0)$		(1.8 ± 0.6) $\times 10^{-3}$		848
$\quad\omega\pi^+ \times B(\omega \to \pi^+\pi^-\pi^0)$		$< 6 \times 10^{-3}$	CL=90%	764
$\pi^+\pi^+\pi^+\pi^-\pi^-$		($1.0\ ^{+0.8}_{-0.7}$) $\times 10^{-3}$		845
$\pi^+\pi^+\pi^+\pi^-\pi^-\pi^0$		($2.9\ ^{+2.9}_{-2.0}$) $\times 10^{-3}$		799