Z

$J = 1$

Charge $= 0$
Mass $m = 91.187 \pm 0.007$ GeV [c]
Full width $\Gamma = 2.490 \pm 0.007$ GeV
$\Gamma(\ell^+\ell^-) = 83.84 \pm 0.27$ MeV [b]
$\Gamma(\text{invisible}) = 498.2 \pm 4.2$ MeV [d]
$\Gamma(\text{hadrons}) = 1740.7 \pm 5.9$ MeV
$\Gamma(\mu^+\mu^-)/\Gamma(e^+e^-) = 1.000 \pm 0.005$
$\Gamma(\tau^+\tau^-)/\Gamma(e^+e^-) = 0.998 \pm 0.005$ [e]
$g_V^\ell = -0.0377 \pm 0.0016$
$g_A^\ell = -0.5008 \pm 0.0008$

Asymmetry parameters

$A_e = 0.161 \pm 0.012$ [f] (S = 1.7)
$A_\tau = 0.141 \pm 0.021$ [f] (S = 1.2)

Charge asymmetry at Z pole

$A_{FB}^{(0,\ell)} = (1.59 \pm 0.18) \times 10^{-2}$
$A_{FB}^{(0,c)} = (5.8 \pm 2.2) \times 10^{-2}$
$A_{FB}^{(0,b)} = (10.7 \pm 1.3) \times 10^{-2}$

Z DECAY MODES		Fraction (Γ_i/Γ)	Confidence level	p (MeV/c)
e^+e^-		(3.366±0.008) %		45600
$\mu^+\mu^-$		(3.367±0.013) %		45600
$\tau^+\tau^-$		(3.360±0.015) %		45600
$\ell^+\ell^-$	[b]	(3.367±0.006) %		45600
invisible		(20.01 ±0.16) %		45600
hadrons		(69.90 ±0.15) %		–
$(u\overline{u}+c\overline{c})/2$		(9.7 ±1.8) %		–
$(d\overline{d}+s\overline{s}+b\overline{b})/3$		(16.8 ±1.2) %		–
$c\overline{c}$		(11.9 ±1.4) %		–
$b\overline{b}$		(15.45 ±0.21) %		–
$\pi^0\gamma$		$< 5.5 \times 10^{-5}$	95%	45600
$\eta\gamma$		$< 5.1 \times 10^{-5}$	95%	45600
$\omega\gamma$		$< 6.5 \times 10^{-4}$	95%	45600
$\eta'(958)\gamma$		$< 4.2 \times 10^{-5}$	95%	45600
$\gamma\gamma$		$< 5.5 \times 10^{-5}$	95%	45600
$\gamma\gamma\gamma$		$< 1.7 \times 10^{-5}$	95%	45600
$\pi^\pm W^\mp$	[g]	$< 7 \times 10^{-5}$	95%	10300
$\rho^\pm W^\mp$	[g]	$< 8.3 \times 10^{-5}$	95%	10300
K^0X		(61.5 ±0.6) %		–
$K^*(892)^+$X		(51 ±5) %		–