K_S^0

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

Mean life $\tau = (0.8926 \pm 0.0012) \times 10^{-10}$ s

$c\tau = 2.676$ cm

CP-violation parameters [x]

$\mathrm{Im}(\eta_{+-0})^2 < 0.12$, CL = 90%

$\mathrm{Im}(\eta_{000})^2 < 0.1$, CL = 90%

K_S^0 DECAY MODES		Fraction (Γ_i/Γ)	Scale factor/ Confidence level	p (MeV/c)
$\pi^+\pi^-$		(68.61±0.28) %	S=1.2	206
$\pi^0\pi^0$		(31.39±0.28) %	S=1.2	209
$\pi^+\pi^-\gamma$	[u,y]	(1.78±0.05) × 10^{-3}		206
$\gamma\gamma$		(2.4 ±1.2) × 10^{-6}		249
$\pi^+\pi^-\pi^0$		< 8.5 × 10^{-5}	CL=90%	133
$3\pi^0$		< 3.7 × 10^{-5}	CL=90%	139
$\pi^\pm e^\mp \nu$	[z]	(6.68±0.10) × 10^{-4}	S=1.3	229
$\pi^\pm \mu^\mp \nu$	[z]	(4.66±0.07) × 10^{-4}	S=1.2	216
$\Delta S = 1$ weak neutral current ($S1$) modes				
$\mu^+\mu^-$	S1	< 3.2 × 10^{-7}	CL=90%	225
e^+e^-	S1	< 1.0 × 10^{-5}	CL=90%	249
$\pi^0 e^+ e^-$	S1	< 1.1 × 10^{-6}	CL=90%	231

K_L^0

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

$m_{K_L} - m_{K_S} = (0.5333 \pm 0.0027) \times 10^{10}\ \hbar\ \mathrm{s}^{-1}$ (S = 1.2)

$= (3.510 \pm 0.018) \times 10^{-12}$ MeV

Mean life $\tau = (5.17 \pm 0.04) \times 10^{-8}$ s

$c\tau = 15.49$ m

Slope parameter g [r]

(See Full Listings for quadratic coefficients)

$K_L^0 \to \pi^+\pi^-\pi^0 = 0.670 \pm 0.014$ (S = 1.6)