

# a<sub>0</sub>(1950)

$$I^G(J^{PC}) = 1^-(0^{++})$$

## OMITTED FROM SUMMARY TABLE

Needs confirmation. Seen in  $\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K\bar{K}\pi$  by LEES 16A with significance  $2.5\sigma$  in  $K_S^0 K^\pm \pi^\mp$  and  $4.2\sigma$  in  $K^+ K^- \pi^0$ .

### a<sub>0</sub>(1950) MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>1931±14±22</b>	12k	<sup>1,2</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K\bar{K}\pi$
1949±32±76	8k	<sup>1</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K_S^0 K^\pm \pi^\mp$
1927±15±23	4k	<sup>1</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K^+ K^- \pi^0$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<sup>1</sup> From a model-independent partial wave analysis fit to a relativistic Breit-Wigner function with a floating width.

<sup>2</sup> Weighted average of the  $K_S^0 K^\pm$  and  $K^+ K^-$  decay modes.

### a<sub>0</sub>(1950) WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>271±22± 29</b>	12k	<sup>1,2</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K\bar{K}\pi$
265±36±110	8k	<sup>1</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K_S^0 K^\pm \pi^\mp$
274±28± 30	4k	<sup>1</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K^+ K^- \pi^0$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<sup>1</sup> From a model-independent partial wave analysis fit to a relativistic Breit-Wigner function with a floating mass.

<sup>2</sup> Weighted average of the  $K_S^0 K^\pm$  and  $K^+ K^-$  decay modes.

### a<sub>0</sub>(1950) DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 \quad K\bar{K}$	seen

### a<sub>0</sub>(1950) BRANCHING RATIOS

$\Gamma(K\bar{K})/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$			
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
<b>seen</b>	12k	<sup>1</sup> LEES	16A BABR	$\gamma\gamma \rightarrow \eta_c(1S) \rightarrow K\bar{K}\pi$

<sup>1</sup> From a model-independent partial wave analysis.

### a<sub>0</sub>(1950) REFERENCES

LEES	16A	PR D93 012005	J.P. Lees <i>et al.</i>	(BABAR Collab.)
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