

$\Sigma(2100) G_{17}$

$$I(J^P) = 1(\frac{7}{2}^-) \text{ Status: } *$$

OMITTED FROM SUMMARY TABLE

$\Sigma(2100)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
≈ 2100 OUR ESTIMATE			
2060 \pm 20	BARBARO-...	70	DPWA $K^- p \rightarrow \Lambda \pi^0$
2120 \pm 30	BARBARO-...	70	DPWA $K^- p \rightarrow \Sigma \pi$

$\Sigma(2100)$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
70 \pm 30	BARBARO-...	70	DPWA $K^- p \rightarrow \Lambda \pi^0$
135 \pm 30	BARBARO-...	70	DPWA $K^- p \rightarrow \Sigma \pi$

$\Sigma(2100)$ DECAY MODES

Mode
$\Gamma_1 \quad N\bar{K}$
$\Gamma_2 \quad \Lambda \pi$
$\Gamma_3 \quad \Sigma \pi$

$\Sigma(2100)$ BRANCHING RATIOS

See "Sign conventions for resonance couplings" in the Note on Λ and Σ Resonances.

$(\Gamma_i \Gamma_f)^{1/2} / \Gamma_{\text{total}}$ in $N\bar{K} \rightarrow \Sigma(2100) \rightarrow \Lambda \pi$	$(\Gamma_1 \Gamma_2)^{1/2} / \Gamma$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
-0.07 \pm 0.02	BARBARO-...	70	DPWA $K^- p \rightarrow \Lambda \pi^0$

$(\Gamma_i \Gamma_f)^{1/2} / \Gamma_{\text{total}}$ in $N\bar{K} \rightarrow \Sigma(2100) \rightarrow \Sigma \pi$	$(\Gamma_1 \Gamma_3)^{1/2} / \Gamma$		
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
+0.13 \pm 0.02	BARBARO-...	70	DPWA $K^- p \rightarrow \Sigma \pi$

$\Sigma(2100)$ REFERENCES

BARBARO-... 70 Duke Conf. 173 A. Barbaro-Galtieri (LRL) IJP
Hyperon Resonances, 1970