

$\Sigma(2100) G_{17}$

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

OMITTED FROM SUMMARY TABLE

### $\Sigma(2100)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
<b><math>\approx 2100</math> OUR ESTIMATE</b>			
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	
$\Gamma_1$	$N\bar{K}$
$\Gamma_2$	$\Lambda \pi$
$\Gamma_3$	$\Sigma \pi$

### $\Sigma(2100)$ BRANCHING RATIOS

See "Sign conventions for resonance couplings" in the Note on  $\Lambda$  and  $\Sigma$  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