

$\Sigma(2100) 7/2^-$  $I(J^P) = 1(\frac{7}{2}^-)$  Status: \*

OMITTED FROM SUMMARY TABLE

 $\Sigma(2100)$  MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$\approx 2100$ 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

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
$70 \pm 30$	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  $\Lambda$  and  $\Sigma$  Resonances.

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

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

 $\Sigma(2100)$  REFERENCES

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