

Table 1: Direct experimental measurements of $\phi_s^{c\bar{c}s}$ and, wherever applicable, $\Delta\Gamma_s$ using $J/\psi K^+ K^-$, $\psi(2S) K^+ K^-$, $J/\psi \pi^+ \pi^-$ and $D_s^+ D_s^-$ decays. The first error is due to statistics, the second one to systematics. The last (last but one) line gives our averages, where the $\Delta\Gamma_s$ uncertainties have been multiplied by 1.88 (1.86) to account for inconsistencies between the $B_s^0 \rightarrow J/\psi K^+ K^-$ measurements. Only solution (a) of Ref. [1] is used.

Exp.	Mode	Dataset	$\phi_s^{c\bar{c}s}$ (rad)	$\Delta\Gamma_s$ (ps ⁻¹)	Ref.
CDF	$J/\psi K^+ K^-$	9.6 fb ⁻¹	$[-0.60, +0.12]$, 68% C.L.	$+0.068 \pm 0.026 \pm 0.009$	[2]
D0	$J/\psi K^+ K^-$	8.0 fb ⁻¹	$-0.55^{+0.38}_{-0.36}$	$+0.163^{+0.065}_{-0.064}$	[3]
ATLAS	$J/\psi K^+ K^-$	4.9 fb ⁻¹	$+0.12 \pm 0.25 \pm 0.05$	$+0.053 \pm 0.021 \pm 0.010$	[4]
ATLAS	$J/\psi K^+ K^-$	14.3 fb ⁻¹	$-0.110 \pm 0.082 \pm 0.042$	$+0.101 \pm 0.013 \pm 0.007$	[5]
ATLAS	$J/\psi K^+ K^-$	80.5 fb ⁻¹	$-0.081 \pm 0.041 \pm 0.022$	$+0.0607 \pm 0.0047 \pm 0.0043$	[1]
ATLAS	above 3 combined		$-0.087 \pm 0.036 \pm 0.021$	$+0.0657 \pm 0.0043 \pm 0.0037$	[1]
CMS	$J/\psi K^+ K^-$	19.7 fb ⁻¹	$-0.075 \pm 0.097 \pm 0.031$	$+0.095 \pm 0.013 \pm 0.007$	[6]
CMS	$J/\psi K^+ K^-$	96.4 fb ⁻¹	$-0.011 \pm 0.050 \pm 0.010$	$+0.114 \pm 0.014 \pm 0.007$	[7]
CMS	above 2 combined		$-0.021 \pm 0.044 \pm 0.010$	$+0.1032 \pm 0.0095 \pm 0.0048$	[7]
LHCb	$J/\psi K^+ K^-$	3.0 fb ⁻¹	$-0.058 \pm 0.049 \pm 0.006$	$+0.0805 \pm 0.0091 \pm 0.0032$	[8]
LHCb	$J/\psi \pi^+ \pi^-$	3.0 fb ⁻¹	$+0.070 \pm 0.068 \pm 0.008$	—	[9]
LHCb	$J/\psi K^+ K^-$ ^a	3.0 fb ⁻¹	$+0.119 \pm 0.107 \pm 0.034$	$+0.066 \pm 0.018 \pm 0.010$	[10]
LHCb	$\psi(2S) K^+ K^-$	3.0 fb ⁻¹	$+0.23^{+0.29}_{-0.28} \pm 0.02$	$+0.066^{+0.41}_{-0.44} \pm 0.007$	[11]
LHCb	$D_s^+ D_s^-$	3.0 fb ⁻¹	$+0.02 \pm 0.17 \pm 0.02$	—	[12]
LHCb	$D_s^+ D_s^-$	6.0 fb ⁻¹	$-0.09 \pm 0.11 \pm 0.03$	—	[13]
LHCb	$J/\psi \pi^+ \pi^-$	1.9 fb ⁻¹ ^b	$-0.057 \pm 0.060 \pm 0.011$	—	[14]
LHCb	$J/\psi K^+ K^-$	6 fb ⁻¹ ^b	$-0.039 \pm 0.022 \pm 0.006$	$+0.0845 \pm 0.0044 \pm 0.0024$	[15]
LHCb	$J/\psi K^+ K^-$ ^c	3.0 fb ⁻¹	$+0.00 \pm 0.28 \pm 0.07$	$+0.115 \pm 0.045 \pm 0.011$	[16]
LHCb	above 9 combined		-0.033 ± 0.018	$+0.085 \pm 0.004$	
$B_s^0 \rightarrow J/\psi K^+ K^-$ combined			-0.050 ± 0.017	$+0.077 \pm 0.006$	
All combined			-0.041 ± 0.016	$+0.079 \pm 0.006$	

^a $m(K^+ K^-) > 1.05$ GeV/ c^2 ^b Run 2 ^c $J/\psi \rightarrow e^+ e^-$

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