

		$\alpha_{J/\psi}$	$\Delta\Phi_{J/\psi}$	α_{Ξ^-}	ϕ_{Ξ^-}	α_{Ξ^0}	ϕ_{Ξ^0}	α_0	α_+	α_-	$\bar{\alpha}_0$
Ξ charged decay	Λ Decay Length	+0.0079 -0.0000	+0.0000 -0.0176	+0.0015 -0.0000	+0.0002 -0.0002	+0.0000 -0.0011	+0.0000 -0.0087	+0.0051 -0.0000	+0.0003 -0.0003	+0.0018 -0.0000	+0.0010 -0.0000
	$ M(p\pi) - M^{PDG}(\Lambda) $	+0.0007 -0.0000	+0.0026 -0.0000	+0.0000 -0.0001	+0.0005 -0.0007	+0.0003 -0.0001	+0.0001 -0.0003	+0.0006 -0.0000	+0.0026 -0.0000	+0.0000 -0.0004	+0.0001 -0.0002
	Ξ Decay Length	+0.0036 -0.0000	+0.0046 -0.0046	+0.0000 -0.0022	+0.0000 -0.0056	+0.0015 -0.0015	+0.0000 -0.0061	+0.0033 -0.0000	+0.0053 -0.0000	+0.0016 -0.0016	+0.0016 -0.0016
	$ M(p\pi\pi) - M^{PDG}(\Xi) $	+0.0035 -0.0000	+0.0004 -0.0056	+0.0007 -0.0010	+0.0000 -0.0032	+0.0001 -0.0026	+0.0004 -0.0011	+0.0006 -0.0020	+0.0008 -0.0000	+0.0017 -0.0008	+0.0029 -0.0000
Ξ neutral decay	χ_{kmf}^2	+0.0014 -0.0000	+0.0044 -0.0000	+0.0000 -0.0009	+0.0002 -0.0002	+0.0000 -0.0000	+0.0011 -0.0000	+0.0000 -0.0023	+0.0000 -0.0007	+0.0007 -0.0000	+0.0004 -0.0004
	$ \cos\theta_{\Xi} $	+0.0015 -0.0000	+0.0042 -0.0000	+0.0000 -0.0001	+0.0000 -0.0005	+0.0003 -0.0000	+0.0000 -0.0007	+0.0002 -0.0000	+0.0021 -0.0000	+0.0000 -0.0007	+0.0006 -0.0001
	$ M(n) - M^{PDG}(n) $	+0.0000 -0.0004	+0.0045 -0.0055	+0.0000 -0.0007	+0.0008 -0.0025	+0.0024 -0.0013	+0.0000 -0.0005	+0.0008 -0.0009	+0.0031 -0.0010	+0.0033 -0.0001	+0.0032 -0.0015
	ε_{π^\pm}	0.0046	0.0071	0.0004	0.0012	0.0004	0.0012	0.0014	0.0015	0.0016	0.0013
	ε_{Λ}	0.0045	0.0158	0.0016	0.0013	0.0015	0.0014	0.0028	0.0023	0.0027	0.0029
Fitting procedure	I/O	0.0011	0.0003	0.0001	0.0001	0.0001	0.0001	0.0019	0.0008	0.0002	0.0026
Background	Mis-combination	0.0025	0.0010	0.0001	0.0009	0.0008	0.0003	0.0079	0.0030	0.0000	0.0013
	$J\psi \rightarrow \eta_c\gamma$	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001
	Charged channel	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000	0.0001
	Flat	0.0014	0.0044	0.0012	0.0023	0.0012	0.0001	0.0042	0.0012	0.0014	0.0045
Sum		+0.0119 -0.0071	+0.0201 -0.0267	+0.0026 -0.0034	+0.0032 -0.0076	+0.0036 -0.0041	+0.0022 -0.0108	+0.0114 -0.0102	+0.0083 -0.0045	+0.0056 -0.0039	+0.0079 -0.0067

Parameters	$J/\psi \rightarrow \Xi^- \bar{\Xi}^+$ [10]	$J/\psi \rightarrow \Lambda \bar{\Lambda}$ [11, 12]	PDG	This work
$\alpha_{J/\psi}$	$0.586 \pm 0.012 \pm 0.010$			$0.6108 \pm 0.0071^{+0.0119}_{-0.0071}$
$\Delta\Phi_{J/\psi}$ (rad)	$1.213 \pm 0.046 \pm 0.016$ rad			$1.2665 \pm 0.0298^{+0.0201}_{-0.0267}$
α_{Ξ}	$-0.376 \pm 0.007 \pm 0.003$			$-0.3681 \pm 0.0042^{+0.0026}_{-0.0034}$
ϕ_{Ξ} (rad)	$0.011 \pm 0.019 \pm 0.009$			$-0.0236 \pm 0.0116^{+0.0032}_{-0.0076}$
$\alpha_{\bar{\Xi}}$	$0.371 \pm 0.007 \pm 0.002$			$0.3764 \pm 0.0042^{+0.0036}_{-0.0041}$
$\phi_{\bar{\Xi}}$ (rad)	$-0.021 \pm 0.019 \pm 0.007$			$0.0072 \pm 0.0117^{+0.0022}_{-0.0108}$
α_0	$0.757 \pm 0.011 \pm 0.008$	$0.7519 \pm 0.0036 \pm 0.0019$		$0.6725 \pm 0.0085^{+0.0114}_{-0.0102}$
α_+	$0.763 \pm 0.011 \pm 0.007$	$-0.7559 \pm 0.0036 \pm 0.0029$		$-0.7758 \pm 0.0088^{+0.0083}_{-0.0045}$
α_-			0.65 ± 0.04	$0.7645 \pm 0.0081^{+0.0056}_{-0.0039}$
$\bar{\alpha}_0$		$-0.692 \pm 0.016 \pm 0.006$		$-0.6723 \pm 0.0078^{+0.0079}_{-0.0067}$

Parameters	Previous results	This work
$\delta_P - \delta_S$ (rad)	$-0.040 \pm 0.033 \pm 0.017$	$0.0257 \pm 0.0253^{+0.0190}_{-0.0052}$
$\xi_P - \xi_S$ (rad)	$0.012 \pm 0.034 \pm 0.008$	$0.0485 \pm 0.0252^{+0.0095}_{-0.0172}$
$A_{CP}^{\Xi^-}$	$0.0060 \pm 0.0134 \pm 0.0056$	$-0.0112 \pm 0.0080^{+0.0064}_{-0.0021}$
A_{CP}^-	$-0.0037 \pm 0.0117 \pm 0.0090$	$-0.0074 \pm 0.0080^{+0.0045}_{-0.0031}$
A_{CP}^0	-	$0.0002 \pm 0.0088^{+0.0074}_{-0.0066}$
$\langle A_{CP}^\Lambda \rangle$	-	$-0.0048 \pm 0.0071^{+0.0040}_{-0.0018}$
ϕ_{CP} (rad)	$-0.0048 \pm 0.0137 \pm 0.0029$	$-0.0082 \pm 0.0080^{+0.0016}_{-0.0060}$
α_0/α_-	-	$0.8797 \pm 0.0146^{+0.0177}_{-0.0175}$
$\bar{\alpha}_0/\alpha_+$	$0.913 \pm 0.028 \pm 0.012$	$0.8665 \pm 0.0140^{+0.0121}_{-0.0092}$
$\langle \phi \rangle$ (rad)	$0.016 \pm 0.014 \pm 0.007$	$-0.0154 \pm 0.0080^{+0.0056}_{-0.0031}$
$\langle \alpha_{\Xi} \rangle$	-	$-0.3722 \pm 0.0029^{+0.0024}_{-0.0027}$
$\langle \alpha_0 \rangle$	-	$0.6724 \pm 0.0057^{+0.0080}_{-0.0076}$
$\langle \alpha_- \rangle$	-	$0.7702 \pm 0.0061^{+0.0045}_{-0.0051}$