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Erratum: Time-dependent *CP* asymmetries in *D* and *B* decays [Phys. Rev. D 84, 114009 (2011)]

A. J. Bevan, G. Inguglia, and B. Meadows

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We correct an exponent (square) in a factor of $|\lambda_f|$ appearing in the denominator of the computed time-dependent asymmetry appearing in Eq. (43). The corrected equation should read as follows:

$$\mathcal{A}^{\mathrm{Phys}}(\Delta t) = \frac{\bar{\Gamma}^{\mathrm{Phys}}(\Delta t) - \Gamma^{\mathrm{Phys}}(\Delta t)}{\bar{\Gamma}^{\mathrm{Phys}}(\Delta t) + \Gamma^{\mathrm{Phys}}(\Delta t)} = -\Delta\omega + \frac{(D + \Delta\omega)e^{\Delta\Gamma\Delta t/2}[(|\lambda_f|^2 - 1)\cos\Delta M\Delta t + 2\mathrm{Im}\lambda_f \sin\Delta M\Delta t]}{h_+(1 + |\lambda_f|^2)/2 + \mathrm{Re}(\lambda_f)h_-}.$$

In addition to this the *CP* eigenvalues quoted in Table II for the modes with a K_L^0 meson have the wrong sign. The correct eigenvalues for that table can be found in Table I below.

We would like to thank Alex Hahn and Michelle Zoccali for pointing out these issues with our original paper.

TABLE I. *CP* eigenstate modes considered in this paper indicating the topologies contributing to each process in terms of the CKM factors associated with *T* (tree), *CS* (color suppressed tree), P_q (penguin where q is a down-type quark), and W_{EX} (*W*-exchange) transitions. Blank entries in the table denote that a given topology does not contribute to the total amplitude of the decay, and the relative strengths of these amplitudes decrease from left to right. Nonresonant modes are indicated by NR in order to differentiate from the resonant contributions with the same final state (but different *CP* eigenvalue and CKM element contribution).

Mode	η_{CP}	T	CS	P_q	W_{EX}
$D^0 \to K^+K^-$	$+1$	$V_{cs}V_{us}^*$		$V_{cq}V_{uq}^*$	
$D^0 \to K_S^0K_S^0$	$+1$				$V_{cs}V_{us}^* + V_{cd}V_{ud}^*$
$D^0 \to \pi^+\pi^-$	$+1$	$V_{cd}V_{ud}^*$		$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to \pi^0\pi^0$	$+1$		$V_{cd}V_{ud}^*$	$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to \rho^+\rho^-$	± 1	$V_{cd}V_{ud}^*$		$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to \rho^0\rho^0$	± 1		$V_{cd}V_{ud}^*$	$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to \phi\pi^0$	$+1$		$V_{cs}V_{us}^*$	$V_{cq}V_{uq}^*$	
$D^0 \to \phi\rho^0$	± 1		$V_{cs}V_{us}^*$	$V_{cq}V_{uq}^*$	
$D^0 \to f^0(980)\pi^0$	-1		$V_{cs}V_{us}^* + V_{cd}V_{ud}^*$	$V_{cq}V_{uq}^*$	
$D^0 \to \rho^0\pi^0$	$+1$		$V_{cd}V_{ud}^*$	$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to a^0\pi^0$	-1		$V_{cd}V_{ud}^*$	$V_{cq}V_{uq}^*$	$V_{cd}V_{ud}^*$
$D^0 \to K_S^0K_S^0K_S^0$	$+1$				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0K_S^0K_S^0$	-1				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0K_L^0K_S^0$	$+1$				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0K_L^0K_L^0$	-1				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_S^0\pi^0$	-1		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$
$D^0 \to K_S^0\omega$	-1		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$
$D^0 \to K_S^0\eta$	-1		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_S^0\eta'$	-1		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_S^0\pi^+\pi^-$ (NR)	$+1$		$V_{cs}V_{ud}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$
$D^0 \to K_S^0\rho^0$	-1		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$
$D^0 \to K_S^0K^+K^-$ (NR)	-1	$V_{cd}V_{us}^*$	$V_{cs}V_{ud}^*$		
$D^0 \to K_S^0\phi$	-1				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_S^0f^0$	$+1$		$V_{cd}V_{us}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$
$D^0 \to K_S^0a^0$	$+1$		$V_{cd}V_{us}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$
$D^0 \to K_L^0\pi^0$	$+1$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$

TABLE I. (*Continued*)

Mode	η_{CP}	T	CS	P_q	W_{EX}
$D^0 \to K_L^0 \omega$	$+1$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$
$D^0 \to K_L^0 \eta$	$+1$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0 \eta'$	$+1$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0 \pi^+ \pi^-$ (NR)	-1		$V_{cs}V_{ud}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$
$D^0 \to K_L^0 \rho^0$	$+1$		$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$		$V_{cd}V_{us}^*$
$D^0 \to K_L^0 K^+ K^-$ (NR)	$+1$	$V_{cd}V_{us}^*$	$V_{cs}V_{ud}^*$		
$D^0 \to K_L^0 \phi$	$+1$				$V_{cs}V_{ud}^* + V_{cd}V_{us}^*$
$D^0 \to K_L^0 f^0$	-1		$V_{cd}V_{us}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$
$D^0 \to K_L^0 a^0$	-1		$V_{cd}V_{us}^*$		$V_{cd}V_{us}^* + V_{cs}V_{ud}^*$