

P_m	P_t
Signal	
Double-Gaussian ($2G$) $2G(m; m_0, \sigma_1, \sigma_2, f_2)$ $m_0 = 5366.5(3)$ MeV $\sigma_1 = 8.6(3)$ MeV $\sigma_2 = 26.8(9)$ MeV $f_2 = 0.14(2)$	$P_t^{\text{sig}}(t, q) = R(\hat{t}, q) \otimes 3G(t - \hat{t}; \mu, \sigma_1^t, \sigma_2^t, \sigma_3^t, f_2^t, f_3^t)$ $\cdot A(t; a, n, t_0)$ $\mu = -0.0021(1)$ ps, $-0.0011(1)$ ps $\sigma_1^t = 0.0300(4)$ ps, $0.0295(5)$ ps $\sigma_2^t / \sigma_1^t = 1.92(4)$, $1.88(3)$ $\sigma_3^t / \sigma_1^t = 14.6(10)$, $14.0(9)$ $f_2^t = 0.23(2)$, $0.27(3)$ $f_3^t = 0.0136(6)$, $0.0121(7)$ $a = 1.89(7)$ ps $^{-1}$, $n = 1.84(12)$, $t_0 = 0.127(15)$ ps
Long-lived background	
Exponential	$[e^{-\hat{t}/\tau^{\text{bkg}}} \otimes 2G(t - \hat{t}; \mu, \sigma_1^t, \sigma_2^t, f_2^t)] \cdot A(t; a, n, t_0)$ $\mu = 0$ $\sigma_1^t = 0.088$ ps $\sigma_2^t = 5.94$ ps $f_2^t = 0.0137$ $\tau^{\text{bkg}} = 0.96$ ps $a = 4.44$ ps $^{-1}$, $n = 4.56$, $t_0 = 0$ ps
Short-lived background	
Exponential	$2G(t; \mu, \sigma_1^t, \sigma_2^t, f_2^t) \cdot A(t; a, n, t_0)$ All parameters are the same as for LL background