Erratum

Hadronic B decays to charmless VT final states

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Equation (20) on p. 699 and (26) on p. 700, respectively, should read

$$\Gamma(B \to VT)$$
$$= \frac{G_{\mathrm{F}}^2}{48\pi m_T^4} f_V^2 |\{V_{ub}^* V_{ud(s)} \cdot (a_1 \text{ or } a_2) - V_{tb}^* V_{td(s)} \cdot (a_i{}'\mathrm{s})\}|^2$$
$$\cdot [\mathcal{X}|\vec{p}_V|^7 + \mathcal{Y}|\vec{p}_V|^5 + \mathcal{Z}|\vec{p}_V|^3]$$

and

$$\frac{\mathcal{B}(B \to VT)}{\mathcal{B}(B \to PT)} \approx \frac{f_V^2 [\mathcal{X}|\vec{p}_V|^7 + \mathcal{Y}|\vec{p}_V|^5 + \mathcal{Z}|\vec{p}_V|^3]}{2|\vec{p}_P|^5 m_B^2 f_P^2 [F^{B \to T}(m_P^2)]^2}.$$

These are just typographical corrections so that these changes do not affect the previous results.

However, in the previous calculation, instead of the B meson mass m_B in the formula for $\mathcal{X}$ of (21) on p. 699, the b quark mass m_b was mistakenly used. Since $\mathcal{X}|\vec{p}_V|^7$ is the dominant term in the decay rate for $B \to VT$ (see (20)), Tables 3, 5, and 7 are modified.

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Table 3. The branching ratios for $B \to VT$ decay modes with $\Delta S = 0$. The second and the third columns correspond to the cases of sets of the parameters: $\{\xi = 0.1,\ m_s = 85\,\text{MeV},\ \gamma = 110°\}$ and $\{\xi = 0.1,\ m_s = 100\,\text{MeV},\ \gamma = 65°\}$, respectively. Similarly, the fourth and the fifth columns correspond to the cases: $\{\xi = 0.3,\ m_s = 85\,\text{MeV},\ \gamma = 110°\}$ and $\{\xi = 0.3,\ m_s = 100\,\text{MeV},\ \gamma = 65°\}$, respectively. The sixth and the seventh columns correspond to the cases: $\{\xi = 0.5,\ m_s = 85\,\text{MeV},\ \gamma = 110°\}$ and $\{\xi = 0.5,\ m_s = 100\,\text{MeV},\ \gamma = 65°\}$, respectively

Decay mode	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$
$B^+ \to \rho^+ a_2^0$	131.29	132.70	116.48	117.91	102.55	103.99
$B^+ \to \rho^+ f_2$	140.36	141.86	124.52	126.05	109.63	111.17
$B^+ \to \rho^+ f_2'$	1.45	1.46	1.28	1.30	1.13	1.15
$B^+ \to \rho^0 a_2^+$	5.03	4.64	0.28	0.19	6.61	6.96
$B^+ \to \omega a_2^+$	4.49	4.50	0.23	0.20	6.87	7.49
$B^+ \to \phi a_2^+$	0.25	0.21	0.024	0.024	0.085	0.048
$B^+ \to \bar{K}^{*0} K_2^{*+}$	0.28	0.18	0.24	0.15	0.20	0.12
$B^0 \to \rho^+ a_2^-$	246.07	248.70	218.30	220.98	192.20	194.90
$B^0 \to \rho^0 a_2^0$	2.36	2.18	0.13	0.10	3.10	3.26
$B^0 \to \rho^0 f_2$	2.52	2.33	0.14	0.10	3.31	3.49
$B^0 \to \rho^0 f_2'$	0.026	0.024	0.001	0.001	0.034	0.036
$B^0 \to \omega a_2^0$	2.10	2.11	0.11	0.10	3.22	3.51
$B^0 \to \omega f_2$	2.25	2.25	0.11	0.10	3.44	3.75
$B^0 \to \omega f_2'$	0.023	0.023	0.001	0.001	0.036	0.039
$B^0 \to \phi a_2^0$	0.12	0.098	0.011	0.011	0.040	0.022
$B^0 \to \phi f_2$	0.13	0.10	0.012	0.012	0.042	0.024
$B^0 \to \phi f_2'$	0.0014	0.0011	0.0001	0.0001	0.0005	0.0003
$B^0 \to \bar{K}^{*0} K_2^{*0}$	0.52	0.34	0.44	0.28	0.37	0.22

Table 5. The branching ratios for $B \to VT$ decay modes with $|\Delta S| = 1$. The definitions for the columns are the same as those in Table 3

Decay mode	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$	$\mathcal{B}(10^{-8})$
$B^+ \to K^{*+} a_2^0$	52.21	28.89	47.16	26.18	42.37	23.61
$B^+ \to K^{*+} f_2$	55.57	30.74	50.19	27.86	45.09	25.13
$B^+ \to K^{*+} f_2'$	0.59	0.33	0.53	0.30	0.48	0.27
$B^+ \to K^{*0} a_2^+$	79.06	79.06	62.35	62.35	47.63	47.63
$B^+ \to \rho^0 K_2^{*+}$	3.47	4.77	3.35	3.22	3.65	2.30
$B^+ \to \omega K_2^{*+}$	30.11	26.70	0.17	0.20	22.24	18.64
$B^+ \to \phi K_2^{*+}$	9.05	9.05	37.31	37.31	85.01	85.01
$B^0 \to K^{*+} a_2^-$	99.09	54.82	89.50	49.69	80.41	44.82
$B^0 \to K^{*0} a_2^0$	37.04	37.04	29.21	29.21	22.32	22.32
$B^0 \to K^{*0} f_2$	39.41	39.41	31.08	31.08	23.75	23.75
$B^0 \to K^{*0} f_2'$	0.42	0.42	0.33	0.33	0.25	0.25
$B^0 \to \rho^0 K_2^{*0}$	3.21	4.42	3.11	2.98	3.38	2.13
$B^0 \to \omega K_2^{*0}$	27.88	24.72	0.16	0.18	20.59	17.26
$B^0 \to \phi K_2^{*0}$	8.39	8.39	34.60	34.60	78.83	78.83

Table 7. Ratios of the branching ratios for $B \to VT$ and for $B \to PT$ decay modes, where V and P have identical quark content. The second and the third columns correspond to the cases of the sets of parameters: $\{m_s = 85\,\text{MeV},\ \gamma = 110°\}$ and $\{m_s = 100\,\text{MeV},\ \gamma = 65°\}$, respectively. In both cases, the values of ξ vary from 0.1 to 0.5

Ratio	$m_s = 85\,\text{MeV},\ \gamma = 110°$	$m_s = 100\,\text{MeV},\ \gamma = 65°$
$\mathcal{B}(B^+ \to \rho^+ a_2^0) / \mathcal{B}(B^+ \to \pi^+ a_2^0)$	2.89	2.96
$\mathcal{B}(B^+ \to \rho^+ f_2) / \mathcal{B}(B^+ \to \pi^+ f_2)$	2.84	2.91
$\mathcal{B}(B^0 \to \rho^+ a_2^-) / \mathcal{B}(B^0 \to \pi^+ a_2^-)$	2.86	2.93
$\mathcal{B}(B^+ \to K^{*+} a_2^0) / \mathcal{B}(B^+ \to K^+ a_2^0)$	12.11–12.68	5.01–5.32
$\mathcal{B}(B^+ \to K^{*+} f_2) / \mathcal{B}(B^+ \to K^+ f_2)$	11.85–12.42	4.90–5.21
$\mathcal{B}(B^0 \to K^{*+} a_2^-) / \mathcal{B}(B^0 \to K^+ a_2^-)$	12.14–12.72	5.02–5.34