

TABLE V: The order of magnitude estimates for  $(\delta_{ij}^{d,u})_A$ ,  $A = LL, RR$  and  $\langle \delta_{ij}^{d,u} \rangle$  in the models defined by Eq. (5.3). The numerical estimates are obtained using quark masses at the scale  $m_Z$  [20] and for  $r_3 = 3$ . All numerical estimates scale as  $(3/r_3)$ .

| $q \ ij$ | $(\delta_{ij}^q)_{LL}$                | $(\delta_{ij}^q)_{RR}$ | $\langle \delta_{ij}^q \rangle$                         |
|----------|---------------------------------------|------------------------|---|
| $d \ 12$ | $r/r_3 \sim 0.3r$                     | $r/r_3 \sim 0.3r$      | $r/r_3 \sim 0.3r$                                       |
| $d \ 13$ | $\hat{r}_1^u/r_3 \sim 0.3\hat{r}_1^u$ | $r/r_3 \sim 0.3r$      | $\sqrt{\hat{r}_1^u r}/r_3 \sim 0.3\sqrt{\hat{r}_1^u r}$ |
| $d \ 23$ | $\hat{r}_2^u/r_3 \sim 0.3\hat{r}_2^u$ | $r/r_3 \sim 0.3r$      | $\sqrt{\hat{r}_2^u r}/r_3 \sim 0.3\sqrt{\hat{r}_2^u r}$ |
| $u \ 12$ | $r/r_3 \sim 0.3r$                     | $r/r_3 \sim 0.3r$      | $r/r_3 \sim 0.3r$                                       |
| $u \ 13$ | $\hat{r}_1/r_3 \sim 0.3\hat{r}_1$     | $r/r_3 \sim 0.3r$      | $\sqrt{\hat{r}_1 r}/r_3 \sim 0.3\sqrt{\hat{r}_1 r}$     |
| $u \ 23$ | $\hat{r}_2/r_3 \sim 0.3\hat{r}_2$     | $r/r_3 \sim 0.3r$      | $\sqrt{\hat{r}_2 r}/r_3 \sim 0.3\sqrt{\hat{r}_2 r}$     |

TABLE VI: The order of magnitude upper bounds on  $(\delta_{ij}^{d,u})_{LL,RR}$  and  $\langle \delta_{ij}^{d,u} \rangle$  corresponding to  $r/r_3 \lesssim 0.006$  and the bounds of Eqs. (5.8,5.9). Entries with an  $r_3$  dependence are indicated so.

| $q \ ij$ | $(\delta_{ij}^q)_{LL}$             | $(\delta_{ij}^q)_{RR}$ | $\langle \delta_{ij}^q \rangle$       |
|----------|------------------------------------|------------------------|---------------------------------------|
| $d \ 12$ | 0.006                              | 0.006                  | 0.006                                 |
| $d \ 13$ | $\max\{0.006, 0.003(3/r_3)\}$      | 0.006                  | $\max\{0.006, 0.004\sqrt{3/r_3}\}$    |
| $d \ 23$ | $\max\{0.006, 0.01(3/r_3)\}$       | 0.006                  | $\max\{0.006, 0.009\sqrt{3/r_3}\}$    |
| $u \ 12$ | 0.006                              | 0.006                  | 0.006                                 |
| $u \ 13$ | $\max\{0.006, 0.001y_b^2(3/r_3)\}$ | 0.006                  | $\max\{0.006, 0.003y_b\sqrt{3/r_3}\}$ |
| $u \ 23$ | $\max\{0.006, 0.01y_b^2(3/r_3)\}$  | 0.006                  | $\max\{0.006, 0.009y_b\sqrt{3/r_3}\}$ |

and

$$\begin{aligned}
\hat{r}_1^u &= \max\{r, y_t^2 V_{td}^* V_{tb}\} \sim \max\{r, 0.009\}, \\
\hat{r}_2^u &= \max\{r, y_t^2 V_{ts}^* V_{tb}\} \sim \max\{r, 0.04\}.
\end{aligned} \tag{5.9}$$

Inserting the bounds (5.7), (5.8) and (5.9) into the predictions of Table V, we obtain the upper bounds on the  $\delta_{ij}^q$  given in Table VI.

We learn that the maximal possible effects in the neutral  $B_d$ ,  $B_s$  and  $D$  systems are as