Basis flavio (EFT WET)

Basis used by the flavio package. Neutrinos are in the flavour basis.

Sectors

The effective Lagrangian is defined as $\,$

$$\mathcal{L}_{\text{eff}} = -\mathcal{H}_{\text{eff}} = \sum_{O_i = O_i^{\dagger}} C_i O_i + \sum_{O_i \neq O_i^{\dagger}} \left(C_i O_i + C_i^* O_i^{\dagger} \right).$$

sbsb

WC name	Operator	Type
CVLL_bsbs	$(\bar{s}_L \gamma^\mu b_L)(\bar{s}_L \gamma_\mu b_L)$	C
CVRR_bsbs	$(ar{s}_R \gamma^\mu b_R) (ar{s}_R \gamma_\mu b_R)$	\mathbf{C}
CSLL_bsbs	$(ar{s}_R b_L)(ar{s}_R b_L)$	\mathbf{C}
CSRR_bsbs	$(ar{s}_L b_R)(ar{s}_L b_R)$	\mathbf{C}
CTLL_bsbs	$(ar{s}_R \sigma^{\mu u} b_L) (ar{s}_R \sigma_{\mu u} b_L)$	\mathbf{C}
CTRR_bsbs	$(ar{s}_L\sigma^{\mu u}b_R)(ar{s}_L\sigma_{\mu u}b_R)$	\mathbf{C}
CVLR_bsbs	$(ar{s}_L \gamma^\mu b_L) (ar{s}_R \gamma_\mu b_R)$	\mathbf{C}
CSLR_bsbs	$(ar{s}_R b_L)(ar{s}_L b_R)$	\mathbf{C}

dbdb

WC name	Operator	Type
CVLL_bdbd	$(ar{d}_L\gamma^\mu b_L)(ar{d}_L\gamma_\mu b_L)$	C
CVRR_bdbd	$(ar{d}_R\gamma^\mu b_R)(ar{d}_R\gamma_\mu b_R)$	C
CSLL_bdbd	$(ar{d}_R b_L)(ar{d}_R b_L)$	C
CSRR_bdbd	$(ar{d}_L b_R)(ar{d}_L b_R)$	C
CTLL_bdbd	$(ar{d}_R\sigma^{\mu u}b_L)(ar{d}_R\sigma_{\mu u}b_L)$	C
CTRR_bdbd	$(ar{d}_L\sigma^{\mu u}b_R)(ar{d}_L\sigma_{\mu u}b_R)$	С
CVLR_bdbd	$(ar{d}_L \gamma^\mu b_L) (ar{d}_R \gamma_\mu b_R)$	C
CSLR_bdbd	$(ar{d}_R b_L)(ar{d}_L b_R)$	C

sdsd

WC name	Operator	Type
CVLL_sdsd	$(ar{d}_L \gamma^\mu s_L) (ar{d}_L \gamma_\mu s_L)$	С
CVRR_sdsd	$(ar{d}_R \gamma^\mu s_R) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
CSLL_sdsd	$(ar{d}_R s_L)(ar{d}_R s_L)$	\mathbf{C}

WC name	Operator	Type
CSRR_sdsd	$(ar{d}_L s_R)(ar{d}_L s_R)$	C
CTLL_sdsd	$(ar{d}_R \sigma^{\mu u} s_L) (ar{d}_R \sigma_{\mu u} s_L)$	\mathbf{C}
CTRR_sdsd	$(ar{d}_L\sigma^{\mu u}s_R)(ar{d}_L\sigma_{\mu u}s_R)$	\mathbf{C}
CVLR_sdsd	$(ar{d}_L \gamma^\mu s_L) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
CSLR_sdsd	$(ar{d}_R s_L)(ar{d}_L s_R)$	\mathbf{C}

cucu

WC name	Operator	Type
CVLL_ucuc	$(\bar{c}_L \gamma^\mu u_L)(\bar{c}_L \gamma_\mu u_L)$	C
CVRR_ucuc	$(\bar{c}_R \gamma^\mu u_R)(\bar{c}_R \gamma_\mu u_R)$	\mathbf{C}
CSLL_ucuc	$(ar{c}_R u_L)(ar{c}_R u_L)$	\mathbf{C}
CSRR_ucuc	$(ar{c}_L u_R)(ar{c}_L u_R)$	\mathbf{C}
CTLL_ucuc	$(\bar{c}_R \sigma^{\mu\nu} u_L)(\bar{c}_R \sigma_{\mu\nu} u_L)$	\mathbf{C}
CTRR_ucuc	$(\bar{c}_L \sigma^{\mu u} u_R)(\bar{c}_L \sigma_{\mu u} u_R)$	\mathbf{C}
CVLR_ucuc	$(ar{c}_L \gamma^\mu u_L)(ar{c}_R \gamma_\mu u_R)$	C
CSLR_ucuc	$(ar{c}_R u_L)(ar{c}_L u_R)$	\mathbf{C}

sb

WC name	Operator	Type
C9_bsee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{e}\gamma_{\mu}e)$	\overline{C}
C9p_bsee	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{e}\gamma_{\mu}e)$	\mathbf{C}
C10_bsee	$rac{4 ilde{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^\mu b_L)(ar{e}\gamma_\mu\gamma_5 e)$	\mathbf{C}
C10p_bsee	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{e}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
CS_bsee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_L b_R)(\bar{e}e)$	\mathbf{C}
CSp_bsee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Rb_L)(\bar{e}e)$	\mathbf{C}
CP_bsee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{e}\gamma_5e)$	\mathbf{C}
CPp_bsee	$rac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} m_b (\bar{s}_R b_L) (\bar{e} \gamma_5 e)$	\mathbf{C}
C9_bsmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{\mu}\gamma_{\mu}\mu)$	\mathbf{C}
C9p_bsmumu	$rac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_R \gamma^\mu b_R) (ar{\mu} \gamma_\mu \mu)$	\mathbf{C}
C10_bsmumu	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{\mu}\gamma_{\mu}\gamma_5\mu)$	\mathbf{C}
C10p_bsmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu}\gamma_{5}\mu)$	\mathbf{C}
CS_bsmumu	$rac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} m_b (ar{s}_L b_R) (ar{\mu} \mu)$	\mathbf{C}
CSp_bsmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Rb_L)(ar{\mu}\mu)$	\mathbf{C}
CP_bsmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Lb_R)(ar{\mu}\gamma_5\mu)$	\mathbf{C}

WC name	Operator	Type
CPp_bsmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Rb_L)(ar{\mu}\gamma_5\mu)$	\mathbf{C}
C9_bstautau	$rac{4 V_F}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_L \gamma^\mu b_L) (ar{ au} \gamma_\mu au)$	$^{\mathrm{C}}$
C9p_bstautau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^{\mu} b_R) (\bar{\tau} \gamma_{\mu} \tau)$	\mathbf{C}
C10_bstautau	$rac{4 V_F^2}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_L \gamma^\mu b_L) (ar{ au} \gamma_\mu \gamma_5 au)$	\mathbf{C}
C10p_bstautau	$rac{4 ec{Q}_{F}}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_R \gamma^{\mu} b_R) (ar{ au} \gamma_{\mu} \gamma_5 au)$	\mathbf{C}
CS_bstautau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} m_b(\bar{s}_L b_R)(\bar{ au} au)$	\mathbf{C}
CSp_bstautau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} m_b(\bar{s}_R b_L)(\bar{\tau}\tau)$	\mathbf{C}
CP_bstautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Lb_R)(ar{ au}\gamma_5 au)$	\mathbf{C}
CPp_bstautau	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}\frac{e^{2}}{16\pi^{2}}m_{b}(\bar{s}_{R}b_{L})(\bar{ au}\gamma_{5} au)$	$^{\mathrm{C}}$
C7_bs	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e}{16\pi^2}m_b(\bar{s}_L\sigma^{\mu\nu}b_R)F_{\mu\nu}$	\mathbf{C}
C7p_bs	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e}{16\pi^2}m_b(\bar{s}_R\sigma^{\mu\nu}b_L)F_{\mu\nu}$	\mathbf{C}
C8_bs	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{g_s}{16\pi^2} m_b (\bar{s}_L \sigma^{\mu\nu} T^a b_R) G_{\mu\nu}^a$	$^{\mathrm{C}}$
C8p_bs	$\frac{4G_F^c}{\sqrt{2}} V_{tb} V_{ts}^* \frac{g_s}{16\pi^2} m_b (\bar{s}_L \sigma^{\mu\nu} T^a b_R) G^a_{\mu\nu}$ $\frac{4G_F^c}{\sqrt{2}} V_{tb} V_{ts}^* \frac{g_s}{16\pi^2} m_b (\bar{s}_R \sigma^{\mu\nu} T^a b_L) G^a_{\mu\nu}$	\mathbf{C}
CVLL_bsbb	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{b}_L\gamma_\mu b_L)$	$^{\mathrm{C}}$
CVLR_bsbb	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\gamma^\mu b_L)(ar{b}_R\gamma_\mu b_R)$	$^{\mathrm{C}}$
CVRL_bsbb	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\gamma^\mu b_R)(ar{b}_L\gamma_\mu b_L)$	$^{\mathrm{C}}$
CVRR_bsbb	$\frac{{}^4\!G_F^2}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{b}_R \gamma_\mu b_R) \\ \frac{{}^4\!G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R b_L) (\bar{b}_R b_L) \\ \frac{{}^4\!G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R b_L) (\bar{b}_L b_R)$	$^{\mathrm{C}}$
CSLL_bsbb	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Rb_L)(b_Rb_L)$	$^{\mathrm{C}}$
CSLR_bsbb	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Rb_L)(b_Lb_R)$	$^{\mathrm{C}}$
CSRL_bsbb	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{b}_Rb_L)$	\mathbf{C}
CSRR_bsbb	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CTLL_bsbb	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\sigma^{\mu u}b_L)(ar{b}_R\sigma_{\mu u}b_L)$	$^{\mathrm{C}}$
CTRR_bsbb	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\sigma^{\mu u}b_R)(ar{b}_L\sigma_{\mu u}b_R)$	$^{\mathrm{C}}$
CVLL_bsss	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\gamma^\mu b_L)(ar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
CVLR_bsss	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\gamma^\mu b_L)(ar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CVRL_bsss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
CVRR_bsss	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\gamma^\mu b_R)(ar{s}_R\gamma_\mu s_R)$	$^{\mathrm{C}}$
CSLL_bsss	$rac{4G_F^2}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Rb_L)(ar{s}_Rs_L) \ rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Rb_L)(ar{s}_Ls_R)$	\mathbf{C}
CSLR_bsss		\mathbf{C}
CSRL_bsss	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRR_bsss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
CTLL_bsss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\sigma^{\mu u}b_L)(ar{s}_R\sigma_{\mu u}s_L)$	$^{\mathrm{C}}$
CTRR_bsss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\sigma^{\mu u}b_R)(ar{s}_L\sigma_{\mu u}s_R)$	$^{\mathrm{C}}$
CVLL_bsdd	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\gamma^\mu b_L)(d_L\gamma_\mu d_L)$	\mathbf{C}
CVLR_bsdd	$\begin{array}{c} \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L b_R) (\bar{s}_L s_R) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \sigma^{\mu\nu} b_L) (\bar{s}_R \sigma_{\mu\nu} s_L) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \sigma^{\mu\nu} b_R) (\bar{s}_L \sigma_{\mu\nu} s_R) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{d}_L \gamma_{\mu} d_L) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{d}_R \gamma_{\mu} d_R) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_R) (\bar{d}_L \gamma_{\mu} d_L) \end{array}$	$^{\mathrm{C}}$
CVRL_bsdd	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\gamma^\mu b_R)(ar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$

$\begin{array}{c} \text{CVRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{d}_R \gamma_\mu d_R) \\ \text{CSLL_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R b_L) (\bar{d}_L d_L) \\ \text{CSRL_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R b_L) (\bar{d}_L d_R) \\ \text{CSRL_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L b_R) (\bar{d}_R d_L) \\ \text{CSRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L b_R) (\bar{d}_L d_R) \\ \text{CSRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L b_R) (\bar{d}_L d_R) \\ \text{CTLL_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \sigma^{\mu\nu} b_L) (\bar{d}_R \sigma_{\mu\nu} d_L) \\ \text{CTRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \sigma^{\mu\nu} b_R) (\bar{d}_L \sigma_{\mu\nu} d_R) \\ \text{CVLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \gamma^\mu b_L^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CVLRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CVRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CVRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \beta_L^\beta) (\bar{d}_R^\beta \alpha_L^\alpha) \\ \text{CSLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \text{CTLLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \sigma^{\mu\nu} b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_R) \\ \end{array}$	C C C C C C C C C C C C C C C C C C C
CSLL_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Rb_L)(\bar{d}_Rd_L)$ CSLR_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Rb_L)(\bar{d}_Ld_R)$ CSRL_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Rd_L)$ CSRR_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Ld_R)$ CTLL_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Ld_R)$ CTRR_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_L)$ CVLLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\sigma^{\mu\nu}b_L)(\bar{d}_L\sigma_{\mu\nu}d_R)$ CVLRt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{d}_L^{\beta}\gamma_{\mu}d_L^{\alpha})$ CVRLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$ CVRLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$ CSLLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha})$ CSLLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha})$ CSRLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CSRLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CSRLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CTLLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_R^{\alpha})$ CTLLt_bsdd $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_R^{\alpha})$ CVLL_bsuu $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$ CVLR_bsuu $\frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$	C C C C C C C C C
CSLR_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Rb_L)(\bar{d}_Ld_R)$ CSRL_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Rd_L)$ CSRR_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Ld_R)$ CTLL_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_L)$ CTRR_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\sigma^{\mu\nu}b_L)(\bar{d}_L\sigma_{\mu\nu}d_R)$ CVLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{d}_L^{\beta}\gamma_{\mu}d_L^{\alpha})$ CVLRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$ CVRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$ CVRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$ CSLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha})$ CSLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha})$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}d_R^{\alpha})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}\sigma_{\mu\nu}d_R^{\alpha})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}\sigma_{\mu\nu}d_R^{\alpha})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_L^{\beta}\sigma_{\mu\nu}d_R^{\alpha})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_L^{\beta}\sigma_{\mu\nu}d_R^{\alpha})$ CTLLt_bsdu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$ CVLL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$ CVLR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^{\mu}b_R)(\bar{u}_L\gamma_{\mu}u_L)$	C C C C C C C C C
$\begin{array}{lll} \text{CSRL_bsdd} & \frac{4\overset{\leftarrow}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Rd_L) \\ \text{CSRR_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{d}_Ld_R) \\ \text{CTLL_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_L) \\ \text{CTRR_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\sigma^{\mu\nu}b_R)(\bar{d}_L\sigma_{\mu\nu}d_R) \\ \text{CVLLt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{d}_L^{\beta}\gamma_{\mu}d_L^{\alpha}) \\ \text{CVLRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha}) \\ \text{CVRLt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha}) \\ \text{CVRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha}) \\ \text{CVRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\beta_L^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha}) \\ \text{CSLLt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha}) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha}) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}b_R^{\beta})(\bar{d}_R^{\beta}d_L^{\alpha}) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}\sigma_{\mu\nu}d_L^{\alpha}) \\ \text{CTLLt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}\sigma_{\mu\nu}d_R^{\alpha}) \\ \text{CTLLT_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_L^{\beta}\sigma_{\mu\nu}d_R^{\alpha}) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L) \\ \end{array}$	C C C C C C C C
$\begin{array}{lll} \operatorname{CSRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L b_R) (d_L d_R) \\ \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \sigma^{\mu\nu} b_L) (\bar{d}_R \sigma_{\mu\nu} d_L) \\ \operatorname{CTRR_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \sigma^{\mu\nu} b_R) (\bar{d}_L \sigma_{\mu\nu} d_R) \\ \operatorname{CVLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \gamma^\mu b_L^\alpha) (\bar{d}_L^\beta \gamma_\mu d_L^\alpha) \\ \operatorname{CVLRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \gamma^\mu b_L^\alpha) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \operatorname{CVRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \operatorname{CVRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \operatorname{CSLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \operatorname{CSLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \operatorname{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \operatorname{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \operatorname{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \operatorname{CTLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \operatorname{CTLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \operatorname{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \operatorname{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \operatorname{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \operatorname{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C C C C C
CTLL_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_L)$ CTRR_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\sigma^{\mu\nu}b_R)(\bar{d}_L\sigma_{\mu\nu}d_R)$ CVLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^2\gamma^{\mu}b_L^{\mu})(\bar{d}_L^{\mu}\gamma_{\mu}d_L^{\mu})$ CVLRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\mu}\gamma^{\mu}b_L^{\mu})(\bar{d}_R^{\mu}\gamma_{\mu}d_R^{\mu})$ CVRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}\gamma^{\mu}b_R^{\mu})(\bar{d}_R^{\mu}\gamma_{\mu}d_R^{\mu})$ CVRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}\gamma^{\mu}b_R^{\mu})(\bar{d}_R^{\mu}\gamma_{\mu}d_R^{\mu})$ CVRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}\beta_L^{\mu})(\bar{d}_R^{\mu}\beta_L^{\mu})$ CSLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}b_L^{\mu})(\bar{d}_R^{\mu}\beta_L^{\mu})$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}b_L^{\mu})(\bar{d}_R^{\mu}\beta_L^{\mu})$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\mu}b_R^{\mu})(\bar{d}_R^{\mu}\beta_L^{\mu})$ CSRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\mu}b_R^{\mu})(\bar{d}_R^{\mu}\beta_L^{\mu})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}\alpha_R^{\mu})(\bar{d}_R^{\mu}\alpha_R^{\mu})$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\mu}\alpha_R^{\mu})(\bar{d}_R^{\mu}\alpha_R^{\mu})$ CTLLt_bsdu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\mu}\alpha_R^{\mu})(\bar{d}_L^{\mu}\alpha_{\mu\nu}d_R^{\mu})$ CVLL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$ CVLR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$ CVLL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^{\mu}b_L)(\bar{u}_L\gamma_{\mu}u_L)$	C C C C C C C
$\begin{array}{lll} \operatorname{CTRR_bsdd} & \frac{4 \overline{G}_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \sigma^{\mu\nu} b_R) (\bar{d}_L \sigma_{\mu\nu} d_R) \\ \operatorname{CVLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \gamma^\mu b_L^\beta) (\bar{d}_L^\beta \gamma_\mu d_L^\alpha) \\ \operatorname{CVLRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \gamma^\mu b_L^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \operatorname{CVRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_L^\alpha) \\ \operatorname{CVRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \operatorname{CSLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \operatorname{CSRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \operatorname{CSRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \operatorname{CSRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \operatorname{CTLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \operatorname{CTLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \operatorname{CVLL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \operatorname{CVLR_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \operatorname{CVLR_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C C C C
CVLRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha\gamma^\mu b_L^\beta)(\bar{d}_R^\beta\gamma_\mu d_R^\alpha)$ CVRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha\gamma^\mu b_R^\beta)(\bar{d}_L^\beta\gamma_\mu d_L^\alpha)$ CVRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha\gamma^\mu b_R^\beta)(\bar{d}_R^\beta\gamma_\mu d_R^\alpha)$ CSLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha\beta_L^\beta)(\bar{d}_R^\beta d_L^\alpha)$ CSLRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha b_L^\beta)(\bar{d}_L^\beta d_R^\alpha)$ CSRLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha b_L^\beta)(\bar{d}_R^\beta d_L^\alpha)$ CSRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha b_R^\beta)(\bar{d}_R^\beta d_L^\alpha)$ CTLLt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha b_R^\beta)(\bar{d}_R^\beta \sigma_{\mu\nu}d_L^\alpha)$ CTRRt_bsdd $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha \sigma^{\mu\nu}b_L^\beta)(\bar{d}_R^\beta \sigma_{\mu\nu}d_L^\alpha)$ CVLL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_L\gamma_\mu u_L)$ CVLR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R)$ CVRL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{u}_L\gamma_\mu u_L)$	C C C C C C
$\begin{array}{lll} \text{CVRLt_bsdd} & \frac{4 \overline{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_L^\beta \gamma_\mu d_L^\alpha) \\ \text{CVRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CSLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSLRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \text{CTLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \text{CVLL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVRL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C C C
$\begin{array}{lll} \text{CVRLt_bsdd} & \frac{4 \overline{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_L^\beta \gamma_\mu d_L^\alpha) \\ \text{CVRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CSLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSLRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_R^\beta d_R^\alpha) \\ \text{CTLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \text{CVLL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVRL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C C C
$\begin{array}{ll} \text{CVRRt_bsdd} & \frac{\sqrt[4]{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \gamma^\mu b_R^\beta) (\bar{d}_R^\beta \gamma_\mu d_R^\alpha) \\ \text{CSLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_R^\beta d_L^\alpha) \\ \text{CSLRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSTLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_R \gamma_\mu u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C C
$\begin{array}{lll} \text{CSLLt_bsdd} & \frac{4 \overline{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^{\alpha} b_L^{\beta}) (\bar{d}_R^{\beta} d_L^{\alpha}) \\ \text{CSLRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^{\alpha} b_L^{\beta}) (\bar{d}_L^{\beta} d_R^{\alpha}) \\ \text{CSRLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} b_R^{\beta}) (\bar{d}_R^{\beta} d_L^{\alpha}) \\ \text{CSRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} b_R^{\beta}) (\bar{d}_L^{\beta} d_R^{\alpha}) \\ \text{CTLLt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^{\alpha} \sigma^{\mu\nu} b_L^{\beta}) (\bar{d}_R^{\beta} \sigma_{\mu\nu} d_L^{\alpha}) \\ \text{CTRRt_bsdd} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} \sigma^{\mu\nu} b_R^{\beta}) (\bar{d}_L^{\beta} \sigma_{\mu\nu} d_R^{\alpha}) \\ \text{CVLL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L) \\ \text{CVLR_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_R \gamma_{\mu} u_R) \\ \text{CVRL_bsuu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^{\mu} b_R) (\bar{u}_L \gamma_{\mu} u_L) \\ \end{array}$	C C C
$\begin{array}{ll} \text{CSLRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha b_L^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CSRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha b_R^\beta) (\bar{d}_L^\beta d_R^\alpha) \\ \text{CTLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{d}_R^\beta \sigma_{\mu\nu} d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{d}_L^\beta \sigma_{\mu\nu} d_R^\alpha) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^\mu b_L) (\bar{u}_R \gamma_\mu u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \end{array}$	C C C
$\begin{array}{ll} \text{CSRLt_bsdd} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} b_R^{\beta}) (\bar{d}_R^{\beta} d_L^{\alpha})}{\sqrt{2}} \\ \text{CSRRt_bsdd} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} b_R^{\beta}) (\bar{d}_L^{\beta} d_R^{\alpha})}{\sqrt{2}} \\ \text{CTLLt_bsdd} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_R^{\alpha} \sigma^{\mu\nu} b_L^{\beta}) (\bar{d}_R^{\beta} \sigma_{\mu\nu} d_L^{\alpha})}{\sqrt{2}} \\ \text{CTRRt_bsdd} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} \sigma^{\mu\nu} b_R^{\beta}) (\bar{d}_L^{\beta} \sigma_{\mu\nu} d_R^{\alpha})}{\sqrt{2}} \\ \text{CVLL_bsuu} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)}{\sqrt{2}} \\ \text{CVLR_bsuu} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_R \gamma_{\mu} u_R)}{\sqrt{2}} \\ \text{CVRL_bsuu} & \frac{4 \overset{\bullet}{G_F} V_{tb} V_{ts}^* (\bar{s}_R \gamma^{\mu} b_R) (\bar{u}_L \gamma_{\mu} u_L)}{\sqrt{2}} \\ \end{array}$	C C
$\begin{array}{ll} \text{CSRRt_bsdd} & \frac{\sqrt[4]{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} b_R^{\beta}) (\bar{d}_L^{\beta} d_R^{\alpha}) \\ \text{CTLLt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R^{\alpha} \sigma^{\mu\nu} b_L^{\beta}) (\bar{d}_R^{\beta} \sigma_{\mu\nu} d_L^{\alpha}) \\ \text{CTRRt_bsdd} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} \sigma^{\mu\nu} b_R^{\beta}) (\bar{d}_L^{\beta} \sigma_{\mu\nu} d_R^{\alpha}) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_R \gamma_{\mu} u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^{\mu} b_R) (\bar{u}_L \gamma_{\mu} u_L) \end{array}$	\mathbf{C}
$\begin{array}{ll} \text{CTLLt_bsdd} & \frac{4\ddot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^\alpha\sigma^{\mu\nu}b_L^\beta)(\bar{d}_R^\beta\sigma_{\mu\nu}d_L^\alpha) \\ \text{CTRRt_bsdd} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha\sigma^{\mu\nu}b_R^\beta)(\bar{d}_L^\beta\sigma_{\mu\nu}d_R^\alpha) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_L\gamma_\mu u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{u}_L\gamma_\mu u_L) \end{array}$	\mathbf{C}
$\begin{array}{ll} \text{CTRRt_bsdd} & \frac{\sqrt[4]{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L^{\alpha} \sigma^{\mu\nu} b_R^{\beta}) (\bar{d}_L^{\beta} \sigma_{\mu\nu} d_R^{\alpha}) \\ \text{CVLL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L) \\ \text{CVLR_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_L \gamma^{\mu} b_L) (\bar{u}_R \gamma_{\mu} u_R) \\ \text{CVRL_bsuu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* (\bar{s}_R \gamma^{\mu} b_R) (\bar{u}_L \gamma_{\mu} u_L) \end{array}$	_
CVLL_bsuu $\frac{4\widetilde{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_L\gamma_\mu u_L)$ CVLR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R)$ CVRL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{u}_L\gamma_\mu u_L)$	© .
CVLR_bsuu $rac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (ar{s}_L \gamma^\mu b_L) (ar{u}_R \gamma_\mu u_R)$ CVRL_bsuu $rac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (ar{s}_R \gamma^\mu b_R) (ar{u}_L \gamma_\mu u_L)$	$^{\mathrm{C}}$
CVRL_bsuu $rac{4 ilde{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\gamma^\mu b_R)(ar{u}_L\gamma_\mu u_L)$	$^{\mathrm{C}}$
CVRR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
	$^{ m C}$
CSLL_bsuu $rac{4ar{Y}_{E}}{\sqrt{2}}V_{tb}V_{ts}^{*}(ar{s}_{R}b_{L})(ar{u}_{R}u_{L})$	\mathbf{C}
CSLR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Rb_L)(\bar{u}_Lu_R)$	$^{\mathrm{C}}$
CSRL_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{u}_Ru_L)$	$^{\mathrm{C}}$
CSRR_bsuu $\frac{4G_F^2}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_Lb_R)(\bar{u}_Lu_R)$	\mathbf{C}
CTLL_bsuu $rac{4G_F^2}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\sigma^{\mu u}b_L)(ar{u}_R\sigma_{\mu u}u_L)$	\mathbf{C}
CTRR_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	\mathbf{C}
CVLLt_bsuu $rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L^lpha\gamma^\mu b_L^eta)(ar{u}_L^eta\gamma_\mu u_L^lpha)$	\mathbf{C}
CVLRt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha})$	$^{\mathrm{C}}$
CVRLt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{lpha}\gamma^{\mu}b_R^{eta})(\bar{u}_L^{eta}\gamma_{\mu}u_L^{lpha})$	$^{\mathrm{C}}$
CVRRt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{lpha}\gamma^{\mu}b_R^{eta})(\bar{u}_R^{eta}\gamma_{\mu}u_R^{lpha})$	$^{\mathrm{C}}$
CSLLt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha})$	\mathbf{C}
CSLRt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}b_L^{\beta})(\bar{u}_L^{\beta}u_R^{\alpha})$	\mathbf{C}
CSRLt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha})$	$^{ m C}$
CSRRt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}b_R^{\beta})(\bar{u}_L^{\beta}u_R^{\alpha})$	$^{\mathrm{C}}$
CTLLt_bsuu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_L^{\alpha})$	$^{\mathrm{C}}$
$\sqrt{2}$, with $\sqrt{2}$	Č

WC name	Operator	Type
CTRRt_bsuu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_L^{\beta}\sigma_{\mu\nu}u_R^{\alpha})$	$\overline{\mathbf{C}}$
CVLL_bscc	$rac{4G_F^c}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\gamma^\mu b_L)(ar{c}_L\gamma_\mu c_L)$	\mathbf{C}
CVLR_bscc	$rac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* (ar{s}_L \gamma^\mu b_L) (ar{c}_R \gamma_\mu c_R)$	\mathbf{C}
CVRL_bscc	$\frac{4\widetilde{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L)$	\mathbf{C}
CVRR_bscc	$rac{4rac{arphi_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\gamma^\mu b_R)(ar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CSLL_bscc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Rb_L)(ar{c}_Rc_L)$	\mathbf{C}
CSLR_bscc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Rb_L)(ar{c}_Lc_R)$	\mathbf{C}
CSRL_bscc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{c}_Rc_L)$	\mathbf{C}
CSRR_bscc	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_Lb_R)(ar{c}_Lc_R)$	\mathbf{C}
CTLL_bscc	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R\sigma^{\mu u}b_L)(ar{c}_R\sigma_{\mu u}c_L)$	\mathbf{C}
CTRR_bscc	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L\sigma^{\mu u}b_R)(ar{c}_L\sigma_{\mu u}c_R)$	$^{\mathrm{C}}$
CVLLt_bscc	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar s_L^lpha\gamma^\mu b_L^eta)(ar c_L^eta\gamma_\mu c_L^lpha)$	\mathbf{C}
CVLRt_bscc	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L^lpha\gamma^\mu b_L^eta)(ar{c}_R^eta\gamma_\mu c_R^lpha)$	\mathbf{C}
CVRLt_bscc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R^lpha\gamma^\mu b_R^eta)(ar{c}_L^eta\gamma_\mu c_L^lpha)$	\mathbf{C}
CVRRt_bscc	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R^lpha\gamma^\mu b_R^eta)(ar{c}_R^eta\gamma_\mu c_R^lpha)$	\mathbf{C}
CSLLt_bscc	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R^lpha b_L^eta)(ar{c}_R^eta c_L^lpha)$	\mathbf{C}
CSLRt_bscc	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_R^lpha b_L^eta)(ar{c}_L^eta c_R^lpha)$	\mathbf{C}
CSRLt_bscc	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L^lpha b_R^eta)(ar{c}_R^eta c_L^lpha)$	$^{\mathrm{C}}$
CSRRt_bscc	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(ar{s}_L^lpha b_R^eta)(ar{c}_L^eta c_R^lpha)$	\mathbf{C}
CTLLt_bscc	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_R^{lpha}\sigma^{\mu u}b_L^{eta})(\bar{c}_R^{eta}\sigma_{\mu u}c_L^{lpha})$	$^{\mathrm{C}}$
CTRRt_bscc	$\frac{\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*(\bar{s}_L^\alpha\sigma^{\mu\nu}b_R^\beta)(\bar{c}_L^\beta\sigma_{\mu\nu}c_R^\alpha)$	С

cu

WC name	Operator	Type
C9_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}(\bar{u}_L\gamma^{\mu}c_L)(\bar{e}\gamma_{\mu}e)$	C
C9p_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}(\bar{u}_R\gamma^{\mu}c_R)(\bar{e}\gamma_{\mu}e)$	\mathbf{C}
C10_cuee	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_L\gamma^{\mu}c_L)(ar{e}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
C10p_cuee	$rac{4 G_F}{\sqrt{2}} V_{cb}^* V_{ub} rac{e^2}{16 \pi^2} (ar{u}_R \gamma^\mu c_R) (ar{e} \gamma_\mu \gamma_5 e)$	\mathbf{C}
CS_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{e}e)$	\mathbf{C}
CSp_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Rc_L)(\bar{e}e)$	\mathbf{C}
CP_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{e}\gamma_5e)$	\mathbf{C}
CPp_cuee	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Rc_L)(\bar{e}\gamma_5e)$	\mathbf{C}
C9_cumumu	$rac{4ar{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_L\gamma^{\mu}c_L)(ar{\mu}\gamma_{\mu}\mu)$	\mathbf{C}
C9p_cumumu	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_R\gamma^{\mu}c_R)(ar{\mu}\gamma_{\mu}\mu)$	\mathbf{C}

WC name	Operator	Type
C10_cumumu	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(\bar{u}_L\gamma^{\mu}c_L)(\bar{\mu}\gamma_{\mu}\gamma_5\mu)$	\mathbf{C}
C10p_cumumu	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_R\gamma^{\mu}c_R)(ar{\mu}\gamma_{\mu}\gamma_5\mu)$	\mathbf{C}
CS_cumumu	$\frac{4V_{cb}}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{\mu}\mu)$	\mathbf{C}
CSp_cumumu	$\frac{4Q_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Rc_L)(\bar{\mu}\mu)$	C
CP_cumumu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{\mu}\gamma_5\mu)$	\mathbf{C}
CPp_cumumu	$rac{4V_{c}}{\sqrt{2}}V_{cb}^{*}V_{ub}rac{e^{2}}{16\pi^{2}}m_{c}(ar{u}_{R}c_{L})(ar{\mu}\gamma_{5}\mu)$	\mathbf{C}
C9_cutautau	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_L\gamma^{\mu}c_L)(ar{ au}\gamma_{\mu} au)$	\mathbf{C}
C9p_cutautau	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}(\bar{u}_R\gamma^{\mu}c_R)(\bar{\tau}\gamma_{\mu}\tau)$	\mathbf{C}
C10_cutautau	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}(\bar{u}_L\gamma^{\mu}c_L)(\bar{\tau}\gamma_{\mu}\gamma_5\tau)$	\mathbf{C}
C10p_cutautau	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}(ar{u}_R\gamma^{\mu}c_R)(ar{ au}\gamma_{\mu}\gamma_5 au)$	\mathbf{C}
CS_cutautau	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{\tau}\tau)$	C
CSp_cutautau	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}\frac{e^2}{16\pi^2}m_c(\bar{u}_Rc_L)(\bar{\tau} au)$	\mathbf{C}
CP_cutautau	$rac{4Q_F^2}{\sqrt{2}}V_{cb}^*V_{ub}rac{e^2}{16\pi^2}m_c(\bar{u}_Lc_R)(\bar{ au}\gamma_5 au)$	\mathbf{C}
CPp_cutautau	$\frac{4V_{cb}^{7}}{\sqrt{2}}V_{cb}^{*}V_{ub}\frac{e^{2}}{16\pi^{2}}m_{c}(\bar{u}_{R}c_{L})(\bar{\tau}\gamma_{5}\tau)$	\mathbf{C}
C7_cu	$\frac{4V_{cb}^{F}}{\sqrt{2}}V_{cb}^{*}V_{ub}\frac{e}{16\pi^{2}}m_{c}(\bar{u}_{L}\sigma^{\mu\nu}c_{R})F_{\mu\nu}$	\mathbf{C}
C7p_cu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{cb}^{*}V_{ub}\frac{e}{16\pi^{2}}m_{c}(\bar{u}_{R}\sigma^{\mu\nu}c_{L})F_{\mu\nu}$	\mathbf{C}
C8_cu	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}rac{g_s}{16\pi^2}m_c(\bar{u}_L\sigma^{\mu u}T^ac_R)G_{\mu u}^a$	\mathbf{C}
C8p_cu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{cb}^{*}V_{ub}\frac{g_{s}}{16\pi^{2}}m_{c}(\bar{u}_{R}\sigma^{\mu\nu}T^{a}c_{L})G_{\mu\nu}^{a}$	\mathbf{C}
CVLL_cucc	$\frac{4\check{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L\gamma^\mu c_L)(\bar{c}_L\gamma_\mu c_L)$	$^{\mathrm{C}}$
CVLR_cucc	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L\gamma^\mu c_L)(\bar{c}_R\gamma_\mu c_R)$	$^{\mathrm{C}}$
CVRL_cucc	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\gamma^\mu c_R)(\bar{c}_L\gamma_\mu c_L)$	$^{\mathrm{C}}$
CVRR_cucc	$\frac{4\bar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\gamma^\mu c_R)(\bar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CSLL_cucc	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Rc_L)(\bar{c}_Rc_L)$	\mathbf{C}
CSLR_cucc	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{c}_Lc_R)$	\mathbf{C}
CSRL_cucc	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{c}_Rc_L)$	\mathbf{C}
CSRR_cucc	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{c}_Lc_R)$	\mathbf{C}
CTLL_cucc	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\sigma^{\mu\nu}c_L)(\bar{c}_R\sigma_{\mu\nu}c_L)$	\mathbf{C}
CTRR_cucc	$\frac{4\overset{\leftarrow}{G_F}V_{cb}^*V_{ub}(\bar{u}_R\sigma^{\mu\nu}c_L)(\bar{c}_R\sigma_{\mu\nu}c_L)}{4\overset{\leftarrow}{G_F}V_{cb}^*V_{ub}(\bar{u}_L\sigma^{\mu\nu}c_R)(\bar{c}_L\sigma_{\mu\nu}c_R)}$	$^{\mathrm{C}}$
CVLL_cuuu	$\frac{4G_F}{V^*V}V_{\perp}(\bar{\eta}_{\perp}\gamma^{\mu}c_{\perp})(\bar{\eta}_{\perp}\gamma^{\mu}q_{\perp})$	\mathbf{C}
CVLR_cuuu	$\frac{\sqrt{2}}{\sqrt{2}} V_{cb}^* V_{ub}(\bar{u}_L \gamma^{\mu} c_L)(\bar{u}_R \gamma_{\mu} u_R)$ $\frac{4G_F}{\sqrt{2}} V_{cb}^* V_{ub}(\bar{u}_L \gamma^{\mu} c_L)(\bar{u}_R \gamma_{\mu} u_R)$ $\frac{4G_F}{\sqrt{2}} V_{cb}^* V_{ub}(\bar{u}_L \gamma^{\mu} c_L)(\bar{u}_L \gamma_{\mu} u_R)$	\mathbf{C}
CVRL_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\gamma^\mu c_R)(\bar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVRR_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\gamma^\mu c_R)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CSLL_cuuu	$\frac{4\widetilde{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Rc_L)(\bar{u}_Ru_L)$	\mathbf{C}
CSLR_cuuu	$rac{4ar{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{u}_Lu_R)$	\mathbf{C}
CSRL_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{u}_Ru_L)$	\mathbf{C}
CSRR_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{u}_Lu_R)$	C

WC name	Operator	Type
CTLL_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\sigma^{\mu\nu}c_L)(\bar{u}_R\sigma_{\mu\nu}u_L)$	$^{\mathrm{C}}$
CTRR_cuuu	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L\sigma^{\mu\nu}c_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	$^{\mathrm{C}}$
CVLL_cubb	$rac{4 \overline{G_F}}{\sqrt{2}} V_{cb}^* V_{ub} (\bar{u}_L \gamma^\mu c_L) (\bar{b}_L \gamma_\mu b_L)$	\mathbf{C}
CVLR_cubb	$rac{4 \widetilde{G_F}}{\sqrt{2}} V_{cb}^* V_{ub} (ar{u}_L \gamma^\mu c_L) (ar{b}_R \gamma_\mu b_R)$	\mathbf{C}
CVRL_cubb	$rac{4ar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\gamma^\mu c_R)(ar{b}_L\gamma_\mu b_L)$	\mathbf{C}
CVRR_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R\gamma^\mu c_R)(\bar{b}_R\gamma_\mu b_R)$	$^{\mathrm{C}}$
CSLL_cubb	$rac{4ar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{b}_Rb_L)$	$^{\mathrm{C}}$
CSLR_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CSRL_cubb	$rac{4ar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Lc_R)(ar{b}_Rb_L)$	$^{\mathrm{C}}$
CSRR_cubb	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{b}_Lb_R)$	$^{\mathrm{C}}$
CTLL_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\sigma^{\mu u}c_L)(ar{b}_R\sigma_{\mu u}b_L)$	$^{\mathrm{C}}$
CTRR_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L\sigma^{\mu u}c_R)(ar{b}_L\sigma_{\mu u}b_R)$	$^{\mathrm{C}}$
CVLLt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha\gamma^\mu c_L^eta)(ar{b}_L^eta\gamma_\mu b_L^lpha)$	$^{\mathrm{C}}$
CVLRt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha\gamma^\mu c_L^eta)(ar{b}_R^eta\gamma_\mu b_R^lpha)$	\mathbf{C}
CVRLt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\gamma^\mu c_R^eta)(ar{b}_L^eta\gamma_\mu b_L^lpha)$	$^{\mathrm{C}}$
CVRRt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\gamma^\mu c_R^eta)(ar{b}_R^eta\gamma_\mu b_R^lpha)$	$^{\mathrm{C}}$
CSLLt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha c_L^eta)(ar{b}_R^eta b_L^lpha)$	\mathbf{C}
CSLRt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha c_L^eta)(ar{b}_L^eta b_R^lpha)$	\mathbf{C}
CSRLt_cubb	$rac{4\dot{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{b}_R^eta b_L^lpha)$	$^{\mathrm{C}}$
CSRRt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{b}_L^eta b_R^lpha)$	\mathbf{C}
CTLLt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\sigma^{\mu u}c_L^eta)(ar{b}_R^eta\sigma_{\mu u}b_L^lpha)$	\mathbf{C}
CTRRt_cubb	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha\sigma^{\mu u}c_R^eta)(ar{b}_L^eta\sigma_{\mu u}b_R^lpha)$	$^{\mathrm{C}}$
CVLL_cudd	$\frac{4\bar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L\gamma^\mu c_L)(\bar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLR_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L\gamma^\mu c_L)(ar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CVRL_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\gamma^\mu c_R)(ar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVRR_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\gamma^\mu c_R)(ar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CSLL_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{d}_Rd_L)$	С
CSLR_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Rc_L)(ar{d}_Ld_R)$	С
CSRL_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_Lc_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
CSRR_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(d_Ld_R)$	С
CTLL_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\sigma^{\mu u}c_L)(ar{d}_R\sigma_{\mu u}d_L)$	С
CTRR_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L\sigma^{\mu u}c_R)(ar{d}_L\sigma_{\mu u}d_R)$	С
CVLLt_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L^\alpha\gamma^\mu c_L^\beta)(\bar{d}_L^\beta\gamma_\mu d_L^\alpha)$	С
CVLRt_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L^{\alpha}\gamma^{\mu}c_L^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}d_R^{\alpha})$	$^{\mathrm{C}}$
CVRLt_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R^\alpha\gamma^\mu c_R^\beta)(\bar{d}_L^\beta\gamma_\mu d_L^\alpha)$	\mathbf{C}
CVRRt_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R^\alpha\gamma^\mu c_R^\beta)(\bar{d}_R^\beta\gamma_\mu d_R^\alpha)$	\mathbf{C}

WC name	Operator	Type
CSLLt_cudd	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_R^{lpha}c_L^{eta})(\bar{d}_R^{eta}d_L^{lpha})$	С
CSLRt_cudd	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha c_L^eta)(ar{d}_L^eta d_R^lpha)$	\mathbf{C}
CSRLt_cudd	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{d}_R^eta d_L^lpha)$	\mathbf{C}
CSRRt_cudd	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{d}_L^eta d_R^lpha)$	\mathbf{C}
CTLLt_cudd	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\sigma^{\mu u}c_L^eta)(ar{d}_R^eta\sigma_{\mu u}d_L^lpha)$	\mathbf{C}
CTRRt_cudd	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha\sigma^{\mu u}c_R^eta)(ar{d}_L^eta\sigma_{\mu u}d_R^lpha)$	\mathbf{C}
CVLL_cuss	$rac{4\widetilde{G}_F^c}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L\gamma^\mu c_L)(ar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVLR_cuss	$rac{4ar{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L\gamma^\mu c_L)(ar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CVRL_cuss	$rac{4ar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\gamma^\mu c_R)(ar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVRR_cuss	$rac{4ar{G}_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\gamma^\mu c_R)(ar{s}_R\gamma_\mu s_R)$	$^{\mathrm{C}}$
CSLL_cuss	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Rc_L)(\bar{s}_Rs_L)$	$^{\mathrm{C}}$
CSLR_cuss	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Rc_L)(\bar{s}_Ls_R)$	$^{\mathrm{C}}$
CSRL_cuss	$rac{4\overline{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRR_cuss	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_Lc_R)(\bar{s}_Ls_R)$	$^{\mathrm{C}}$
CTLL_cuss	$rac{4ar{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R\sigma^{\mu u}c_L)(ar{s}_R\sigma_{\mu u}s_L)$	\mathbf{C}
CTRR_cuss	$rac{4 \overline{G_F}}{\sqrt{2}} V_{cb}^* V_{ub} (ar{u}_L \sigma^{\mu u} c_R) (ar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
CVLLt_cuss	$rac{4 G_F}{\sqrt{2}} V_{cb}^* V_{ub} (ar{u}_L^lpha \gamma^\mu c_L^eta) (ar{s}_L^eta \gamma_\mu s_L^lpha)$	\mathbf{C}
CVLRt_cuss	$rac{4 \overline{G_F}}{\sqrt{2}} V_{cb}^* V_{ub} (ar{u}_L^lpha \gamma^\mu c_L^eta) (ar{s}_R^eta \gamma_\mu s_R^lpha)$	\mathbf{C}
CVRLt_cuss	$rac{4reve{G_F}}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\gamma^\mu c_R^eta)(ar{s}_L^eta\gamma_\mu s_L^lpha)$	\mathbf{C}
CVRRt_cuss	$rac{4ar{Q}_F^T}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\gamma^\mu c_R^eta)(ar{s}_R^eta\gamma_\mu s_R^lpha)$	\mathbf{C}
CSLLt_cuss	$rac{4ar{Q}_F^T}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha c_L^eta)(ar{s}_R^eta s_L^lpha)$	\mathbf{C}
CSLRt_cuss	$rac{4G_F^2}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha c_L^eta)(ar{s}_L^eta s_R^lpha)$	\mathbf{C}
CSRLt_cuss	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{s}_R^eta s_L^lpha)$	$^{\mathrm{C}}$
CSRRt_cuss	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_L^lpha c_R^eta)(ar{s}_L^eta s_R^lpha)$	\mathbf{C}
CTLLt_cuss	$rac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(ar{u}_R^lpha\sigma^{\mu u}c_L^eta)(ar{s}_R^eta\sigma_{\mu u}s_L^lpha)$	\mathbf{C}
CTRRt_cuss	$\frac{4G_F}{\sqrt{2}}V_{cb}^*V_{ub}(\bar{u}_L^\alpha\sigma^{\mu\nu}c_R^\beta)(\bar{s}_L^\beta\sigma_{\mu\nu}s_R^\alpha)$	C

sbnunu

WC name	Operator	Type
CL_bsnuenue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	С
CL_bsnumunumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
${\tt CL_bsnutaunutau}$	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{ au})$	\mathbf{C}
CL_bsnuenumu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}\frac{e^{2}}{16\pi^{2}}(\bar{s}_{L}\gamma^{\mu}b_{L})(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_{5})\nu_{e})$	\mathbf{C}
CL_bsnumunue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}

WC name	Operator	Type
CL_bsnumunutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{ u}_{ au}\gamma_{\mu}(1-\gamma_5) u_{\mu})$	С
${\tt CL_bsnutaunumu}$	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CL_bsnuenutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CL_bsnutaunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{ au})$	\mathbf{C}
CR_bsnuenue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_bsnumunumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bsnutaunutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CR_bsnuenumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_bsnumunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bsnumunutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bsnutaunumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CR_bsnuenutau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^{\mu} b_R) (\bar{\nu}_{\tau} \gamma_{\mu} (1 - \gamma_5) \nu_e)$	\mathbf{C}
CR_bsnutaunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^\mu b_R)(\bar{\nu}_e\gamma_\mu(1-\gamma_5)\nu_\tau)$	С

sd

WC name	Operator	Type
C9_sdee	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}e)$	$\overline{\mathbf{C}}$
C9p_sdee	$rac{4G_F^2}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}s_R)(ar{e}\gamma_{\mu}e)$	\mathbf{C}
C10_sdee	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}(\bar{d}_{L}\gamma^{\mu}s_{L})(\bar{e}\gamma_{\mu}\gamma_{5}e)$	\mathbf{C}
C10p_sdee	$rac{4ar{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{R}\gamma^{\mu}s_{R})(ar{e}\gamma_{\mu}\gamma_{5}e)$	$^{\mathrm{C}}$
CS_sdee	$\frac{4G_F^2}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e}e)$	\mathbf{C}
CSp_sdee	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}m_{s}(\bar{d}_{R}s_{L})(\bar{e}e)$	\mathbf{C}
CP_sdee	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}m_{s}(\bar{d}_{L}s_{R})(\bar{e}\gamma_{5}e)$	$^{\mathrm{C}}$
CPp_sdee	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}m_{s}(\bar{d}_{R}s_{L})(\bar{e}\gamma_{5}e)$	$^{\mathrm{C}}$
C9_sdmumu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}(\bar{d}_{L}\gamma^{\mu}s_{L})(\bar{\mu}\gamma_{\mu}\mu)$	$^{\mathrm{C}}$
C9p_sdmumu	$rac{4 ar{G}_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16\pi^2} (ar{d}_R \gamma^\mu s_R) (ar{\mu} \gamma_\mu \mu)$	$^{\mathrm{C}}$
C10_sdmumu	$rac{4ar{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{L}\gamma^{\mu}s_{L})(ar{\mu}\gamma_{\mu}\gamma_{5}\mu)$	$^{\mathrm{C}}$
C10p_sdmumu	$rac{4 G_F^2}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_R \gamma^\mu s_R) (ar{\mu} \gamma_\mu \gamma_5 \mu)$	$^{\mathrm{C}}$
CS_sdmumu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}m_{s}(\bar{d}_{L}s_{R})(\bar{\mu}\mu)$	$^{\mathrm{C}}$
CSp_sdmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}\mu)$	$^{\mathrm{C}}$
CP_sdmumu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_L s_R)(ar{\mu}\gamma_5\mu)$	\mathbf{C}
CPp_sdmumu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_Rs_L)(ar{\mu}\gamma_5\mu)$	\mathbf{C}
C9_sdtautau	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_L \gamma^\mu s_L) (ar{ au} \gamma_\mu au)$	\mathbf{C}

WC name	Operator	Type
C9p_sdtautau	$rac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16\pi^2} (ar{d}_R \gamma^\mu s_R) (ar{ au} \gamma_\mu au)$	С
C10_sdtautau	$rac{4Q_F^2}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}s_L)(ar{ au}\gamma_{\mu}\gamma_5 au)$	\mathbf{C}
C10p_sdtautau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}s_R)(ar{ au}\gamma_{\mu}\gamma_5 au)$	\mathbf{C}
CS_sdtautau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_L s_R)(ar{ au} au)$	\mathbf{C}
CSp_sdtautau	$rac{4Q_F^2}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16\pi^2} m_s(ar{d}_R s_L) (ar{ au} au)$	\mathbf{C}
CP_sdtautau	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\tau}\gamma_5 \tau)$	\mathbf{C}
CPp_sdtautau	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{\tau}\gamma_5 \tau)$	\mathbf{C}
C7_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e}{16\pi^2}m_s(\bar{d}_L\sigma^{\mu\nu}s_R)F_{\mu\nu}$	\mathbf{C}
C7p_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e}{16\pi^2}m_s(\bar{d}_R\sigma^{\mu\nu}s_L)F_{\mu\nu}$	\mathbf{C}
C8_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{g_s}{16\pi^2}m_s(d_L\sigma^{\mu\nu}T^as_R)G_{\mu\nu}^a$	$^{\mathrm{C}}$
C8p_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^* \frac{g_s}{16\pi^2}m_s(\bar{d}_R\sigma^{\mu\nu}T^as_L)G_{\mu\nu}^a$	\mathbf{C}
CVLL_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(d_L\gamma^\mu s_L)(ar s_L\gamma_\mu s_L)$	\mathbf{C}
CVLR_sdss	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CVRL_sdss	$rac{4ar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVRR_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CSLL_sdss	$rac{4ar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
CSLR_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
CSRL_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRR_sdss	$rac{4reve{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{s}_Ls_R) \ rac{4reve{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\sigma^{\mu u}s_L)(ar{s}_R\sigma_{\mu u}s_L)$	$^{\mathrm{C}}$
CTLL_sdss		$^{\mathrm{C}}$
CTRR_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\sigma^{\mu u}s_R)(ar{s}_L\sigma_{\mu u}s_R)$	$^{\mathrm{C}}$
CVLL_sddd	$rac{4ec{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLR_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CVRL_sddd	$\frac{\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^{\mu}s_R)(\bar{d}_L\gamma_{\mu}d_L)}{\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^{\mu}s_R)(\bar{d}_R\gamma_{\mu}d_R)}$	С
CVRR_sddd		С
CSLL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{d}_Rd_L)$	С
CSLR_sddd	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{d}_Ld_R)$	С
CSRL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{d}_Rd_L)$	С
CSRR_sddd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{d}_Ld_R)$	С
CTLL_sddd	$\frac{4GF}{\sqrt{2}}V_{ts}V_{td}^*(d_R\sigma^{\mu\nu}s_L)(d_R\sigma_{\mu\nu}d_L)$	С
CTRR_sddd	$\frac{1GF}{\sqrt{2}}V_{ts}V_{td}^{\pi}(d_L\sigma^{\mu\nu}s_R)(d_L\sigma_{\mu\nu}d_R)$	С
CVLL_sdbb	$\frac{1G_F}{\sqrt{2}}V_{ts}V_{td}^*(d_L\gamma^\mu s_L)(b_L\gamma_\mu b_L)$	С
CVLR_sdbb	$\begin{array}{c} \frac{\sqrt{2}}{\sqrt{2}} V_{ts} V_{td}^* (d_L s_R) (d_L a_R) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R \sigma^{\mu\nu} s_L) (\bar{d}_R \sigma_{\mu\nu} d_L) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_L \sigma^{\mu\nu} s_R) (\bar{d}_L \sigma_{\mu\nu} d_R) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_L \gamma^{\mu} s_L) (\bar{b}_L \gamma_{\mu} b_L) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_L \gamma^{\mu} s_L) (\bar{b}_R \gamma_{\mu} b_R) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R \gamma^{\mu} s_R) (\bar{b}_L \gamma_{\mu} b_L) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R \gamma^{\mu} s_R) (\bar{b}_R \gamma_{\mu} b_R) \\ \frac{4G_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R s_L) (\bar{b}_R b_L) \end{array}$	С
CVRL_sdbb	$\frac{\sqrt{2}}{\sqrt{2}} V_{ts} V_{td} (a_R \gamma^{rs} s_R) (b_L \gamma_{\mu} b_L)$ $4G_F V_L V_*^* (\bar{J}_L \mu_L) (\bar{J}_L \mu_L)$	С
CVRR_sdbb	$\frac{\sqrt{2}}{\sqrt{2}}V_{ts}V_{td}(a_R\gamma^\mu s_R)(b_R\gamma_\mu b_R)$ $4G_FV_FV^*(\bar{J}_F)(\bar{J}_FV_F)$	С
CSLL_sdbb	$\frac{1}{\sqrt{2}} V_{ts} V_{td} (a_R s_L) (o_R o_L)$	$^{\mathrm{C}}$

WC name	Operator	Type
CSLR_sdbb	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{b}_Lb_R)$	\mathbf{C}
CSRL_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L s_R)(ar{b}_R b_L) \ rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L s_R)(ar{b}_L b_R)$	$^{\mathrm{C}}$
CSRR_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CTLL_sdbb	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(d_R\sigma^{\mu\nu}s_L)(b_R\sigma_{\mu\nu}b_L)$	\mathbf{C}
CTRR_sdbb	$rac{4reve{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\sigma^{\mu u}s_R)(ar{b}_L\sigma_{\mu u}b_R)$	\mathbf{C}
CVLLt_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\gamma^\mu s_L^eta)(ar{b}_L^eta\gamma_\mu b_L^lpha)$	$^{\mathrm{C}}$
CVLRt_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\gamma^\mu s_L^eta)(ar{b}_R^eta\gamma_\mu b_R^lpha)$	$^{\mathrm{C}}$
CVRLt_sdbb	$rac{4ar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\gamma^\mu s_R^eta)(ar{b}_L^eta\gamma_\mu b_L^lpha)$	$^{\mathrm{C}}$
CVRRt_sdbb	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* (ar{d}_R^lpha \gamma^\mu s_R^eta) (ar{b}_R^eta \gamma_\mu b_R^lpha)$	\mathbf{C}
CSLLt_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha s_L^eta)(ar{b}_R^eta b_L^lpha)$	\mathbf{C}
CSLRt_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha s_L^eta)(ar{b}_L^eta b_R^lpha)$	\mathbf{C}
CSRLt_sdbb	$rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha s_R^eta)(ar{b}_R^eta b_L^lpha)$	\mathbf{C}
CSRRt_sdbb	$rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^{lpha}s_R^{eta})(ar{b}_L^{eta}b_R^{lpha})$	\mathbf{C}
CTLLt_sdbb	$rac{4rac{arphi_{F}}{\sqrt{2}}}{\sqrt{2}}V_{ts}V_{td}^{*}(ar{d}_{R}^{lpha}\sigma^{\mu u}s_{L}^{eta})(ar{b}_{R}^{eta}\sigma_{\mu u}b_{L}^{lpha})$	\mathbf{C}
CTRRt_sdbb	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\sigma^{\mu u}s_R^eta)(ar{b}_L^eta\sigma_{\mu u}b_R^lpha)$	\mathbf{C}
CVLL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(d_L\gamma^\mu s_L)(\bar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVLR_sduu	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CVRL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^\mu s_R)(\bar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVRR_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^\mu s_R)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CSLL_sduu	$rac{4ar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{u}_Ru_L)$	$^{\mathrm{C}}$
CSLR_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{u}_Lu_R)$	$^{\mathrm{C}}$
CSRL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Ru_L)$	\mathbf{C}
CSRR_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L s_R)(ar{u}_L u_R)$	\mathbf{C}
CTLL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_L)(\bar{u}_R\sigma_{\mu\nu}u_L)$	$^{\mathrm{C}}$
CTRR_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	С
CVLLt_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\gamma^\mu s_L^eta)(ar{u}_L^eta\gamma_\mu u_L^lpha)$	С
CVLRt_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\gamma^\mu s_L^eta)(ar{u}_R^eta\gamma_\mu u_R^lpha)$	\mathbf{C}
CVRLt_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^{lpha}\gamma^{\mu}s_R^{eta})(ar{u}_L^{eta}\gamma_{\mu}u_L^{lpha})$	$^{\mathrm{C}}$
CVRRt_sduu	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\gamma^\mu s_R^eta)(ar{u}_R^eta\gamma_\mu u_R^lpha)$	\mathbf{C}
CSLLt_sduu	$rac{4 \overset{.}{G_F}}{\sqrt{2}} V_{ts} V_{td}^* (ar{d}_R^lpha s_L^eta) (ar{u}_R^eta u_L^lpha)$	\mathbf{C}
CSLRt_sduu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^{lpha}s_L^{eta})(ar{u}_L^{eta}u_R^{lpha})$	\mathbf{C}
CSRLt_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha s_R^eta)(ar{u}_R^eta u_L^lpha)$	$^{\mathrm{C}}$
CSRRt_sduu	$rac{4\overset{G_F}{V_2}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha s_R^eta)(ar{u}_L^eta u_R^lpha)$	\mathbf{C}
CTLLt_sduu	$rac{4G_F^2}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\sigma^{\mu u}s_L^eta)(ar{u}_R^eta\sigma_{\mu u}u_L^lpha)$	\mathbf{C}
CTRRt_sduu	$\frac{{}^{4G_F}_{c}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^\alpha\sigma^{\mu\nu}s_R^\beta)(\bar{u}_L^\beta\sigma_{\mu\nu}u_R^\alpha)$	$^{\mathrm{C}}$
CVLL_sdcc	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{c}_L\gamma_\mu c_L)$	\mathbf{C}
	v 2	

WC name	Operator	Type
CVLR_sdcc	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{c}_R\gamma_\mu c_R)$	C
CVRL_sdcc	$\frac{4 \check{G}_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R \gamma^\mu s_R) (\bar{c}_L \gamma_\mu c_L)$	\mathbf{C}
CVRR_sdcc	$\frac{4 \check{G}_F}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_R \gamma^\mu s_R) (\bar{c}_R \gamma_\mu c_R)$	\mathbf{C}
CSLL_sdcc	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{c}_Rc_L)$	\mathbf{C}
CSLR_sdcc	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{c}_Lc_R)$	\mathbf{C}
CSRL_sdcc	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{c}_Rc_L)$	\mathbf{C}
CSRR_sdcc	$\frac{4 \overset{\leftarrow}{G_F}}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_L s_R) (\bar{c}_L c_R)$	\mathbf{C}
CTLL_sdcc	$\frac{4\check{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu u}s_L)(\bar{c}_R\sigma_{\mu u}c_L)$	\mathbf{C}
CTRR_sdcc	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}s_R)(\bar{c}_L\sigma_{\mu\nu}c_R)$	\mathbf{C}
CVLLt_sdcc	$rac{4 \overset{.}{G_F}}{\sqrt{2}} V_{ts} V_{td}^* (ar{d}_L^lpha \gamma^\mu s_L^eta) (ar{c}_L^eta \gamma_\mu c_L^lpha)$	\mathbf{C}
CVLRt_sdcc	$rac{4reve{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha\gamma^\mu s_L^eta)(ar{c}_R^eta\gamma_\mu c_R^lpha)$	\mathbf{C}
CVRLt_sdcc	$rac{4rac{ ilde{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\gamma^\mu s_R^eta)(ar{c}_L^eta\gamma_\mu c_L^lpha)$	\mathbf{C}
CVRRt_sdcc	$rac{4rac{arphi_F}{\sqrt{2}}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\gamma^\mu s_R^eta)(ar{c}_R^eta\gamma_\mu c_R^lpha)$	\mathbf{C}
CSLLt_sdcc	$rac{4ar{Q}_F^2}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha s_L^eta)(ar{c}_R^eta c_L^lpha)$	\mathbf{C}
CSLRt_sdcc	$rac{4ar{Q}_F^2}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha s_L^eta)(ar{c}_L^eta c_R^lpha)$	\mathbf{C}
CSRLt_sdcc	$rac{4ar{Q}_F^2}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha s_R^eta)(ar{c}_R^eta c_L^lpha)$	\mathbf{C}
CSRRt_sdcc	$rac{4ar{Q}_{F}^{F}}{\sqrt{2}}V_{ts}V_{td}^{*}(ar{d}_{L}^{lpha}s_{R}^{eta})(ar{c}_{L}^{eta}c_{R}^{lpha})$	\mathbf{C}
CTLLt_sdcc	$rac{4ar{Q}_F^2}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^lpha\sigma^{\mu u}s_L^eta)(ar{c}_R^eta\sigma_{\mu u}c_L^lpha)$	\mathbf{C}
CTRRt_sdcc	$\frac{4\overset{\circ}{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^{\alpha}\sigma^{\mu\nu}s_R^{\beta})(\bar{c}_L^{\beta}\sigma_{\mu\nu}c_R^{\alpha})$	C

sdnunu

WC name	Operator	Type
CL_sdnuenue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^\mu d_L)(\bar{\nu}_e\gamma_\mu(1-\gamma_5)\nu_e)$	
${\tt CL_sdnumunumu}$	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
${\tt CL_sdnutaunutau}$	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CL_sdnuenumu	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_L\gamma^\mu d_L)(\bar{\nu}_\mu\gamma_\mu(1-\gamma_5)\nu_e)$	\mathbf{C}
CL_sdnumunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CL_sdnumunutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
${\tt CL_sdnutaunumu}$	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{ au})$	\mathbf{C}
CL_sdnuenutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CL_sdnutaunue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CR_sdnuenue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_sdnumunumu	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^\mu d_R) (\bar{\nu}_\mu \gamma_\mu (1-\gamma_5) \nu_\mu)$	\mathbf{C}
CR_sdnutaunutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}

WC name	Operator	Type
CR_sdnuenumu	$rac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*rac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	С
CR_sdnumunue	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_sdnumunutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_sdnutaunumu	$\frac{4 \bar{Q}_F}{\sqrt{2}} V_{td} V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^\mu d_R) (\bar{\nu}_\mu \gamma_\mu (1 - \gamma_5) \nu_\tau)$	\mathbf{C}
CR_sdnuenutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_sdnutaunue	$\frac{{}^{4}G_{F}}{\sqrt{2}}V_{td}V_{ts}^{*}\frac{e^{2}}{16\pi^{2}}(\bar{s}_{R}\gamma^{\mu}d_{R})(\bar{\nu}_{e}\gamma_{\mu}(1-\gamma_{5})\nu_{\tau})$	\mathbf{C}

db

WC name	Operator	Type
C9_bdee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{e}\gamma_{\mu}e)$	С
C9p_bdee	$\frac{4G_F^2}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{e}\gamma_{\mu}e)$	\mathbf{C}
C10_bdee	$rac{4\ddot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{e}\gamma_\mu\gamma_5 e)$	\mathbf{C}
C10p_bdee	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{e}\gamma_\mu\gamma_5 e)$	\mathbf{C}
CS_bdee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{e}e)$	\mathbf{C}
CSp_bdee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{e}e)$	\mathbf{C}
CP_bdee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{e}\gamma_5e)$	\mathbf{C}
CPp_bdee	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{e}\gamma_5e)$	\mathbf{C}
C9_bdmumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\mu}\gamma_{\mu}\mu)$	\mathbf{C}
C9p_bdmumu	$rac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* rac{e^2}{16\pi^2} (ar{d}_R \gamma^\mu b_R) (ar{\mu} \gamma_\mu \mu)$	\mathbf{C}
C10_bdmumu	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{\mu}\gamma_\mu\gamma_5\mu)$	\mathbf{C}
C10p_bdmumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu}\gamma_{5}\mu)$	\mathbf{C}
CS_bdmumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu}\mu)$	$^{\mathrm{C}}$
CSp_bdmumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu}\mu)$	$^{\mathrm{C}}$
CP_bdmumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu}\gamma_5\mu)$	\mathbf{C}
CPp_bdmumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu}\gamma_5\mu)$	$^{\mathrm{C}}$
C9_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{ au}\gamma_\mu au)$	$^{\mathrm{C}}$
C9p_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{ au}\gamma_\mu au)$	$^{\mathrm{C}}$
C10_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{ au}\gamma_\mu\gamma_5 au)$	$^{\mathrm{C}}$
C10p_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{ au}\gamma_\mu\gamma_5 au)$	$^{\mathrm{C}}$
CS_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(ar{d}_L b_R)(ar{ au} au)$	$^{\mathrm{C}}$
CSp_bdtautau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(ar{d}_Rb_L)(ar{ au} au)$	$^{\mathrm{C}}$
CP_bdtautau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{e^2}{16\pi^2} m_b(\bar{d}_L b_R)(\bar{\tau}\gamma_5 au)$	$^{\mathrm{C}}$
CPp_bdtautau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\tau}\gamma_5\tau)$	$^{\mathrm{C}}$

C7_bd C7p_bd C8_bd	$\frac{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{e}{16\pi^2} m_b(\bar{d}_L \sigma^{\mu\nu} b_R) F_{\mu\nu}}{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{e}{16\pi^2} m_b(\bar{d}_R \sigma^{\mu\nu} b_L) F_{\mu\nu}}$ $\frac{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{g_s}{16\pi^2} m_b(\bar{d}_L \sigma^{\mu\nu} T^a b_R) G_{\mu\nu}^a}{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{g_s}{16\pi^2} m_b(\bar{d}_R \sigma^{\mu\nu} T^a b_L) G_{\mu\nu}^a}$ $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{b}_L \gamma_{\mu} b_L)$	C C C
=	$\frac{{}^{4}\!$	
C8_bd	$\frac{4\bar{G}_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{g_s}{16\pi^2} m_b (\bar{d}_R \sigma^{\mu\nu} T^a b_L) G_{\mu\nu}^a$	\mathbf{C}
	$\frac{4\bar{G}_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{g_s}{16\pi^2} m_b (\bar{d}_R \sigma^{\mu\nu} T^a b_L) G_{\mu\nu}^a$	-
C8p_bd	$4\tilde{G}_F V_{r} V^* (\bar{d}_{r} \alpha \mu h_{r}) (\bar{h}_{r} \alpha h_{r})$	$^{\mathrm{C}}$
CVLL_bdbb	$\frac{1}{\sqrt{2}} v_{tb} v_{td} (a_L \gamma b_L) (b_L \gamma_{\mu} b_L)$	$^{\mathrm{C}}$
CVLR_bdbb	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{b}_R\gamma_\mu b_R)$	$^{\mathrm{C}}$
CVRL_bdbb	$\frac{4\tilde{V}_{t}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{b}_L\gamma_{\mu}b_L)$	$^{\mathrm{C}}$
CVRR_bdbb	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{b}_R\gamma_\mu b_R)$	$^{\mathrm{C}}$
CSLL_bdbb	$\frac{4\tilde{V}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{R}b_{L})(\bar{b}_{R}b_{L})$	$^{\mathrm{C}}$
CSLR_bdbb	$\frac{4\widetilde{V}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{R}b_{L})(\bar{b}_{L}b_{R})$	\mathbf{C}
CSRL_bdbb	$rac{4ar{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_Lb_R)(ar{b}_Rb_L)$	\mathbf{C}
CSRR_bdbb	$\frac{4\tilde{V}_{t}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{b}_Lb_R)$	$^{\mathrm{C}}$
CTLL_bdbb	$\frac{4\check{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}b_L)(\bar{b}_R\sigma_{\mu\nu}b_L)$	\mathbf{C}
CTRR_bdbb	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{b}_L\sigma_{\mu\nu}b_R)$	\mathbf{C}
CVLL_bddd	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^{\mu}b_L)(\bar{d}_L\gamma_{\mu}d_L)$	$^{\mathrm{C}}$
CVLR_bddd	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^{\mu}b_L)(\bar{d}_R\gamma_{\mu}d_R)$	$^{\mathrm{C}}$
CVRL_bddd	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{d}_L \gamma_\mu d_L)$	$^{\mathrm{C}}$
CVRR_bddd	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{d}_R\gamma_\mu d_R)$	\mathbf{C}
CSLL_bddd	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_Rb_L)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
CSLR_bddd	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRL_bddd	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^{*a}(ar{d}_Lb_R)(ar{d}_Rd_L)$	\mathbf{C}
CSRR_bddd	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{d}_Ld_R)$	$^{\mathrm{C}}$
CTLL_bddd	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}d_L)$	\mathbf{C}
CTRR_bddd	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{d}_L\sigma_{\mu\nu}d_R)$	\mathbf{C}
CVLL_bdss	$\frac{4\widetilde{Y}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{L}\gamma^{\mu}b_{L})(\bar{s}_{L}\gamma_{\mu}s_{L})$	\mathbf{C}
CVLR_bdss	$\frac{4\widetilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CVRL_bdss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
CVRR_bdss	$\frac{\frac{4\ddot{G}_{F}^{*}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{R}\gamma^{\mu}b_{R})(\bar{s}_{R}\gamma_{\mu}s_{R})}{\frac{4G_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{R}b_{L})(\bar{s}_{R}s_{L})}$	\mathbf{C}
CSLL_bdss	$\frac{4\tilde{V}_{t}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{s}_Rs_L)$	\mathbf{C}
CSLR_bdss	$\frac{4G_F}{\bar{s}}V_{th}V_{tl}^*(d_D b_L)(\bar{s}_L s_D)$	$^{\mathrm{C}}$
CSRL_bdss	$\frac{4\widetilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRR_bdss	$ \frac{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{s}_Rs_L)}{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{s}_Ls_R)} \\ \frac{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{s}_Ls_R)}{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{s}_R\sigma_{\mu\nu}s_L)} \\ \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{s}_L\sigma_{\mu\nu}s_R) \\ \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{s}_L\sigma_{\mu\nu}s_R) $	$^{\mathrm{C}}$
CTLL_bdss	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}b_L)(\bar{s}_R\sigma_{\mu\nu}s_L)$	\mathbf{C}
CTRR_bdss	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{s}_L\sigma_{\mu\nu}s_R)$	\mathbf{C}
CVLLt_bdss	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{s}_L^eta\gamma_\mu s_L^lpha)$	\mathbf{C}
CVLRt_bdss	$rac{4rac{arphi_F}{\sqrt{2}}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{s}_R^{eta}\gamma_\mu s_R^lpha)$	\mathbf{C}
CVRLt_bdss	$ \frac{\frac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{s}_L^{\beta}\gamma_{\mu}s_L^{\alpha})}{\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{s}_R^{\beta}\gamma_{\mu}s_R^{\alpha})} $ $ \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{s}_L^{\beta}\gamma_{\mu}s_L^{\alpha}) $	\mathbf{C}

$\begin{array}{c} \text{CVRRt_bdss} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_R^2 \gamma^{\mu} b_R^3) (\bar{s}_R^2 \gamma_{\mu} s_R^{\alpha})}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_R^2 b_L^2) (\bar{s}_R^2 s_L^{\alpha})} & \text{C} \\ \text{CSLLt_bdss} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_R^2 b_L^2) (\bar{s}_R^2 s_L^{\alpha})}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_R^2 b_L^2) (\bar{s}_R^2 s_R^{\alpha})} & \text{C} \\ \text{CSRLt_bdss} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L^2 b_R^2) (\bar{s}_R^2 s_R^{\alpha})}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_L^2 b_R^2) (\bar{s}_R^2 s_R^{\alpha})} & \text{C} \\ \text{CSRRt_bdss} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L^2 b_R^2) (\bar{s}_R^2 s_R^{\alpha})}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_R^2 \sigma^{\mu\nu} b_L^2) (\bar{s}_R^2 \sigma_{\mu\nu} s_L^{\alpha})} & \text{C} \\ \text{CTRLt_bdss} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_R^2 \sigma^{\mu\nu} b_L^2) (\bar{s}_R^2 \sigma_{\mu\nu} s_R^{\alpha})}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)}{4G_F^2 V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \gamma^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_L \gamma_{\mu} u_L)} & \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \gamma_{\mu} u_L)} & \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \sigma_{\mu\nu} u_L)} & \text{C} \\ \text{CTLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \sigma_{\mu\nu} u_L)} & \text{C} \\ \text{CTLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \sigma_{\mu\nu} u_L)} & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \sigma_{\mu\nu} u_L)} & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R \sigma_{\mu\nu} u_L)} & \text{C} \\ \text{CVRR_bduu} & \frac{4G_F}{2} V_{tb} V_{td}^* (\bar{d}_L \rho^{\mu} b_L) (\bar{u}_R^2 \gamma_{\mu} u_R^2)} & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{2} V_{tb} V_{td}$	WC name	Operator	Type
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CVRRt_bdss	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^lpha\gamma^\mu b_R^eta)(\bar{s}_R^eta\gamma_\mu s_R^lpha)$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSLLt_bdss	$\frac{4\check{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{lpha}b_L^{eta})(\bar{s}_R^{eta}s_L^{lpha})$	\mathbf{C}
$\begin{array}{c} \text{CSRt_bdss} & \frac{4G_F^2}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_0}^2 p_R^2) (\overline{s_L}^2 s_R^2) & \text{C} \\ \text{CTLLt_bdss} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_0}^2 \sigma^{\mu\nu} b_R^2) (\overline{s_R}^2 \sigma_{\mu\nu} s_\Omega^2) & \text{C} \\ \text{CTRRt_bdss} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_0}^2 \sigma^{\mu\nu} b_R^2) (\overline{s_R}^2 \sigma_{\mu\nu} s_\Omega^2) & \text{C} \\ \text{CTRRt_bdss} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_0}^2 \sigma^{\mu\nu} b_R^2) (\overline{s_L}^2 \sigma_{\mu\nu} s_\Omega^2) & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_1} c_1^{\mu\nu} b_L) (\overline{u_L} \gamma_\mu u_L) & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} \gamma^\mu b_L) (\overline{u_L} \gamma_\mu u_L) & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} \gamma^\mu b_L) (\overline{u_L} \gamma_\mu u_L) & \text{C} \\ \text{CVRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_R} \gamma^\mu b_R) (\overline{u_L} \gamma_\mu u_L) & \text{C} \\ \text{CVRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_R} b_L) (\overline{u_L} \gamma_\mu u_L) & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_R} b_L) (\overline{u_L} u_R) & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} b_R) (\overline{u_L} u_R) & \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} b_R) (\overline{u_L} u_R) & \text{C} \\ \text{CSRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} b_R) (\overline{u_L} u_R) & \text{C} \\ \text{CTLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_L) & \text{C} \\ \text{CTRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_L} a_R^{\mu\nu} b_L) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\overline{d_R} a_R^{\mu\nu} b_R) (\overline{u_R} \sigma_{\mu\nu} u_R) & \text{C} \\ \text{CSRR_bduu} & $	CSLRt_bdss	$rac{4\overset{Q^{2}}{G_{F}}}{\sqrt{2}}V_{tb}V_{td}^{st}(ar{d}_{R}^{lpha}b_{L}^{eta})(ar{s}_{L}^{eta}s_{R}^{lpha})$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSRLt_bdss	$rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha b_R^eta)(ar{s}_R^eta s_L^lpha)$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSRRt_bdss	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(ar{d}_{L}^{lpha}b_{R}^{eta})(ar{s}_{L}^{eta}s_{R}^{lpha})$	\mathbf{C}
$\begin{array}{c} \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \gamma^\mu b_L) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \text{C} \\ \text{CVRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_R) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_L) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSLR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_L) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CTLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_L) (\bar{u}_R \sigma_\mu u_L) \\ \text{C} \\ \text{CTRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{C} \\ \text{CVLLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRT_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu \gamma_\mu u_R^\alpha) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CVIL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* $	CTLLt_bdss		\mathbf{C}
$\begin{array}{c} \text{CVLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \gamma^\mu b_L) (\bar{u}_L \gamma_\mu u_L) \\ \text{CVLR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \gamma^\mu b_L) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L) \\ \text{C} \\ \text{CVRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_R) (\bar{u}_R \gamma_\mu u_R) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_L) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSLR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R b_L) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CSRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L b_R) (\bar{u}_L u_R) \\ \text{C} \\ \text{CTLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_L) (\bar{u}_R \sigma_\mu u_L) \\ \text{C} \\ \text{CTRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{C} \\ \text{CVLLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRT_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CVRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_L \sigma_\mu \nu_\mu b_R) (\bar{u}_L \sigma_\mu u_\mu u_R) \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu \gamma_\mu u_R^\alpha) \\ \text{C} \\ \text{CSLL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRR_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CSRL_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* \overline{d}_R \gamma^\mu b_R^* \right) (\bar{u}_R^\mu u_R^\alpha) \\ \text{C} \\ \text{CVIL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* $	CTRRt_bdss	$rac{4rac{Q_F^2}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\sigma^{\mu u}b_R^eta)(ar{s}_L^eta\sigma_{\mu u}s_R^lpha)$	\mathbf{C}
$\begin{array}{c} \text{CVRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{u}_R\gamma_\mu u_R) \\ \text{CSLL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{u}_Ru_L) \\ \text{CSLR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{u}_Lu_R) \\ \text{CSRL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CTLL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L) \\ \text{CTRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \\ \text{CVLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu b_R^b)(\bar{u}_L^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCTLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCTLLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R\gamma_\mu u_L) \\ \text{CCVRL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\beta^\mu u_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\beta_\mu u_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V$	CVLL_bduu		\mathbf{C}
$\begin{array}{c} \text{CVRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{u}_R\gamma_\mu u_R) \\ \text{CSLL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{u}_Ru_L) \\ \text{CSLR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{u}_Lu_R) \\ \text{CSRL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CSRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R) \\ \text{CTLL_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L) \\ \text{CTRR_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \\ \text{CVLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu b_R^b)(\bar{u}_L^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^b)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCSRRt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCTLLt_bduu} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^b_L)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CCTLLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R^\beta\gamma_\mu u_L^\alpha) \\ \text{CVLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta^\mu u_L)(\bar{u}_R\gamma_\mu u_L) \\ \text{CCVRL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\beta^\mu u_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V_{td}^*(\bar{d}_R\beta_\mu u_L)(\bar{u}_R\gamma_\mu u_R) \\ \text{CCCLL_bdec} & \frac{4G_F}{2}V_{tb}V$	CVLR_bduu	$\frac{4\tilde{G}_F^2}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CVRL_bduu	$\frac{4 \overset{\sim}{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{u}_L \gamma_\mu u_L)$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CVRR_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSLL_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{u}_Ru_L)$	$^{\mathrm{C}}$
CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_R\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L) \qquad \qquad C$ CTRR_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \qquad \qquad C$ CVLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_L^{\beta}\gamma_{\mu}u_L^{\alpha}) \qquad \qquad C$ CVLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CSLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}p_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_L^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_R^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRR_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Rc_L) \qquad \qquad C$	CSLR_bduu		$^{\mathrm{C}}$
CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_R\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L) \qquad \qquad C$ CTRR_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \qquad \qquad C$ CVLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_L^{\beta}\gamma_{\mu}u_L^{\alpha}) \qquad \qquad C$ CVLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CSLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}p_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_L^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_R^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRR_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Rc_L) \qquad \qquad C$	CSRL_bduu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Ru_L)$	$^{\mathrm{C}}$
CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_R\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L) \qquad \qquad C$ CTRR_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \qquad \qquad C$ CVLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_L^{\beta}\gamma_{\mu}u_L^{\alpha}) \qquad \qquad C$ CVLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}b_L^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CVRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha}) \qquad \qquad C$ CSLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}p_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSLRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CSRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLL_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTLLt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}b_R^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha}) \qquad \qquad C$ CTRRt_bduu $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_L^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{\alpha}\sigma^{\mu\nu}b_R^{\beta})(\bar{u}_R^{\beta}\sigma_{\mu\nu}u_R^{\alpha}) \qquad \qquad C$ CVLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_L)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_L\gamma_{\mu}c_L) \qquad \qquad C$ CVRR_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^{\mu}b_R)(\bar{c}_R\gamma_{\mu}c_R) \qquad \qquad C$ CSL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Rc_L) \qquad \qquad C$	CSRR_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{u}_Lu_R)$	$^{\mathrm{C}}$
$\begin{array}{c} \text{CVLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \gamma^\mu b_L^\beta) (\bar{u}_L^\beta \gamma_\mu u_L^\alpha) \\ \text{CVLRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \gamma^\mu b_L^\beta) (\bar{u}_R^\beta \gamma_\mu u_R^\alpha) \\ \text{CVRLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_L^\beta \gamma_\mu u_L^\alpha) \\ \text{CVRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_L^\beta \gamma_\mu u_R^\alpha) \\ \text{CVRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_R^\beta \gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_R^\beta u_L^\alpha) \\ \text{CSRLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CCTLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta \sigma_{\mu\nu} u_L^\alpha) \\ \text{CTRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{u}_R^\beta \sigma_{\mu\nu} u_L^\alpha) \\ \text{CVLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) \\ \text{CVLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_L \gamma_\mu c_L) \\ \text{CVRR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \beta_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \beta_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \beta_L) (\bar{c}_L c_R) \\ \end{array}$	CTLL_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_R\sigma^{\mu\nu}b_L)(\bar{u}_R\sigma_{\mu\nu}u_L)$	$^{\mathrm{C}}$
$\begin{array}{c} \text{CVLRt_bduu} & \frac{\sqrt{4}G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu b_L^\beta)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CVRLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^\beta)(\bar{u}_L^\beta\gamma_\mu u_L^\alpha) \\ \text{CVRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha\gamma^\mu b_R^\beta)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha\beta_L^\beta)(\bar{u}_R^\beta\gamma_\mu u_R^\alpha) \\ \text{CSLRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha b_L^\beta)(\bar{u}_R^\beta u_L^\alpha) \\ \text{CSRLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha b_L^\beta)(\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_R^\beta u_L^\alpha) \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_R^\beta u_L^\alpha) \\ \text{CCTLLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_R^\beta \sigma_{\mu\nu} u_L^\alpha) \\ \text{CTRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha \sigma^{\mu\nu} b_L^\beta)(\bar{u}_R^\beta \sigma_{\mu\nu} u_R^\alpha) \\ \text{CCTRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha \sigma^{\mu\nu} b_R^\beta)(\bar{u}_R^\beta \sigma_{\mu\nu} u_R^\alpha) \\ \text{CCTRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_L\gamma_\mu c_L) \\ \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_R\gamma_\mu c_R) \\ \text{CVLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) \\ \text{CCTRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Rc_L) \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Rc_L) \\ \text{CCSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\beta_L)(\bar{c}_Lc_R) \\ \end{array}$	CTRR_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	$^{\mathrm{C}}$
$\begin{array}{c} \text{CVRLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_L^\beta \gamma_\mu u_L^\alpha) \\ \text{CVRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_R^\beta \gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_R^\beta u_L^\alpha) \\ \text{CSLRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CTLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CTRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{u}_R^\beta \sigma_{\mu\nu} u_L^\alpha) \\ \text{CVLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{u}_L^\beta \sigma_{\mu\nu} u_R^\alpha) \\ \text{CVLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_R \gamma_\mu c_R) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_L c_R) \\ \end{array}$	CVLLt_bduu	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{u}_L^eta\gamma_\mu u_L^lpha)$	$^{\mathrm{C}}$
$\begin{array}{c} \text{CVRRt_bduu} & \frac{4 \widetilde{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha \gamma^\mu b_R^\beta) (\bar{u}_R^\beta \gamma_\mu u_R^\alpha) \\ \text{CSLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_R^\beta u_L^\alpha) \\ \text{CSLRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_R^\beta u_L^\alpha) \\ \text{CSRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) \\ \text{CTLLt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{u}_R^\beta \sigma_{\mu\nu} u_L^\alpha) \\ \text{CTRRt_bduu} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{u}_L^\beta \sigma_{\mu\nu} u_R^\alpha) \\ \text{CVLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) \\ \text{CVLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_R \gamma_\mu c_R) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CVRL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \text{CSLL_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \text{CSLR_bdcc} & \frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) \\ \end{array}$	CVLRt_bduu	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{u}_R^eta\gamma_\mu u_R^lpha)$	\mathbf{C}
$\begin{array}{c} \text{CSLLt_bduu} & \frac{\sqrt{4}G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha b_L^\beta)(\bar{u}_R^\beta u_L^\alpha) & \text{C} \\ \text{CSLRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha b_L^\beta)(\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CSRLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha b_R^\beta)(\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CTLLt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^\alpha \sigma^{\mu\nu}b_L^\beta)(\bar{u}_R^\beta \sigma_{\mu\nu}u_L^\alpha) & \text{C} \\ \text{CTRRt_bduu} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha \sigma^{\mu\nu}b_R^\beta)(\bar{u}_L^\beta \sigma_{\mu\nu}u_R^\alpha) & \text{C} \\ \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^\alpha \sigma^{\mu\nu}b_R^\beta)(\bar{u}_L^\beta \sigma_{\mu\nu}u_R^\alpha) & \text{C} \\ \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Lc_R) & \text{C} \\ \end{array}$	CVRLt_bduu	$\frac{4\check{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{u}_L^{\beta}\gamma_{\mu}u_L^{\alpha})$	\mathbf{C}
$\begin{array}{c} \text{CSLRt_bduu} & \frac{\sqrt{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R^\alpha b_L^\beta) (\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CSRLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_R^\beta u_L^\alpha) & \text{C} \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CSRRt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha b_R^\beta) (\bar{u}_L^\beta u_R^\alpha) & \text{C} \\ \text{CTLLt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_L^\beta) (\bar{u}_R^\beta \sigma_{\mu\nu} u_L^\alpha) & \text{C} \\ \text{CTRRt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{u}_L^\beta \sigma_{\mu\nu} u_R^\alpha) & \text{C} \\ \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) & \text{C} \\ \text{CVLR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_R \gamma_\mu c_R) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_L \gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_L c_R) & \text{C} \\ \end{array}$	CVRRt_bduu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{lpha}\gamma^{\mu}b_R^{eta})(\bar{u}_R^{eta}\gamma_{\mu}u_R^{lpha})$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSLLt_bduu	$rac{4\overset{\circ}{N_L}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_R^{lpha}b_L^{eta})(ar{u}_R^{eta}u_L^{lpha})$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSLRt_bduu	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R^{lpha}b_L^{eta})(\bar{u}_L^{eta}u_R^{lpha})$	\mathbf{C}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CSRLt_bduu	$rac{4\overset{\circ}{N_L}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha b_R^eta)(ar{u}_R^eta u_L^lpha)$	\mathbf{C}
$\begin{array}{ccccc} \text{CTRRt_bduu} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L^\alpha \sigma^{\mu\nu} b_R^\beta) (\bar{u}_L^\beta \sigma_{\mu\nu} u_R^\alpha) & \text{C} \\ \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_L \gamma_\mu c_L) & \text{C} \\ \text{CVLR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_L \gamma^\mu b_L) (\bar{c}_R \gamma_\mu c_R) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_L \gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R \gamma^\mu b_R) (\bar{c}_R \gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_R c_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}} V_{tb} V_{td}^* (\bar{d}_R b_L) (\bar{c}_L c_R) & \text{C} \\ \end{array}$	CSRRt_bduu	$\frac{4\tilde{Q}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}(\bar{d}_{L}^{lpha}b_{R}^{eta})(\bar{u}_{L}^{eta}u_{R}^{lpha})$	\mathbf{C}
$\begin{array}{cccc} \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_L\gamma^\mu b_L)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Lc_R) & \text{C} \\ \end{array}$	CTLLt_bduu		\mathbf{C}
$\begin{array}{cccc} \text{CVLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(d_L\gamma^\mu b_L)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Lc_R) & \text{C} \\ \end{array}$	CTRRt_bduu	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L^{lpha}\sigma^{\mu u}b_R^{eta})(\bar{u}_L^{eta}\sigma_{\mu u}u_R^{lpha})$	\mathbf{C}
$\begin{array}{ccc} \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Lc_R) & \text{C} \end{array}$	CVLL_bdcc	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_L\gamma_\mu c_L)$	\mathbf{C}
$\begin{array}{ccc} \text{CVRL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L) & \text{C} \\ \text{CVRR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R) & \text{C} \\ \text{CSLL_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L) & \text{C} \\ \text{CSLR_bdcc} & \frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Lc_R) & \text{C} \end{array}$	CVLR_bdcc	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\gamma^\mu b_L)(\bar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CSLR_bdcc $\frac{4GF}{C}V_{tb}V_{td}^*(d_Rb_L)(\bar{c}_Lc_R)$ C	CVRL_bdcc	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_L\gamma_\mu c_L)$	\mathbf{C}
CSLR_bdcc $\frac{4GF}{C}V_{tb}V_{td}^*(d_Rb_L)(\bar{c}_Lc_R)$ C	CVRR_bdcc	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\gamma^\mu b_R)(\bar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CSLR_bdcc $\frac{4GF}{C}V_{tb}V_{td}^*(d_Rb_L)(\bar{c}_Lc_R)$ C	CSLL_bdcc	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Rb_L)(\bar{c}_Rc_L)$	\mathbf{C}
CSRL_bdcc $\frac{4\ddot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{c}_Rc_L) \qquad \qquad C$ CSRR_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{c}_Lc_R) \qquad \qquad C$ CTLL_bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}b_L)(\bar{c}_R\sigma_{\mu\nu}c_L) \qquad \qquad C$	CSLR_bdcc	$\frac{4GF}{\sqrt{2}}V_{tb}V_{td}^{*}(d_{R}b_{L})(\bar{c}_{L}c_{R})$	\mathbf{C}
CSRR_bdcc $\frac{4\ddot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_Lb_R)(\bar{c}_Lc_R) \qquad \qquad C$ CTLL bdcc $\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}b_L)(\bar{c}_R\sigma_{\mu\nu}c_L) \qquad \qquad C$	CSRL_bdcc	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_Lb_R)(ar{c}_Rc_L)$	\mathbf{C}
CTLL bdcc $\frac{4\check{G}_F}{\bar{G}_F}V_{tb}V_{cd}^*(\bar{d}_B\sigma^{\mu\nu}b_L)(\bar{c}_B\sigma_{\mu\nu}c_L)$ C	CSRR_bdcc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_Lb_R)(ar{c}_Lc_R)$	\mathbf{C}
$\sqrt{2} \cdot t \theta \cdot t d (\text{with } t E) (\text{with } \mu \nu E)$	CTLL_bdcc	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_R\sigma^{\mu u}b_L)(ar{c}_R\sigma_{\mu u}c_L)$	\mathbf{C}

WC name	Operator	Type
CTRR_bdcc	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}b_R)(\bar{c}_L\sigma_{\mu\nu}c_R)$	С
CVLLt_bdcc	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{c}_L^eta\gamma_\mu c_L^lpha)$	\mathbf{C}
CVLRt_bdcc	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\gamma^\mu b_L^eta)(ar{c}_R^eta\gamma_\mu c_R^lpha)$	\mathbf{C}
CVRLt_bdcc	$rac{4reve{G_F}}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_R^lpha\gamma^\mu b_R^eta)(ar{c}_L^eta\gamma_\mu c_L^lpha)$	\mathbf{C}
CVRRt_bdcc	$rac{4 \overset{.}{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (ar{d}_R^lpha \gamma^\mu b_R^eta) (ar{c}_R^eta \gamma_\mu c_R^lpha)$	\mathbf{C}
CSLLt_bdcc	$rac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (ar{d}_R^lpha b_L^eta) (ar{c}_R^eta c_L^lpha)$	\mathbf{C}
CSLRt_bdcc	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_R^lpha b_L^eta)(ar{c}_L^eta c_R^lpha)$	\mathbf{C}
CSRLt_bdcc	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha b_R^eta)(ar{c}_R^eta c_L^lpha)$	\mathbf{C}
CSRRt_bdcc	$rac{4 ar{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (ar{d}_L^lpha b_R^eta) (ar{c}_L^eta c_R^lpha)$	\mathbf{C}
CTLLt_bdcc	$rac{4 \overset{.}{G_F}}{\sqrt{2}} V_{tb} V_{td}^* (ar{d}_R^lpha \sigma^{\mu u} b_L^eta) (ar{c}_R^eta \sigma_{\mu u} c_L^lpha)$	\mathbf{C}
CTRRt_bdcc	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*(ar{d}_L^lpha\sigma^{\mu u}b_R^eta)(ar{c}_L^eta\sigma_{\mu u}c_R^lpha)$	\mathbf{C}

${\tt dbnunu}$

WC name	Operator	Type
CL_bdnuenue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	C
CL_bdnumunumu	$rac{4Q_F^2}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}b_L)(ar{ u}_{\mu}\gamma_{\mu}(1-\gamma_5) u_{\mu})$	\mathbf{C}
${\tt CL_bdnutaunutau}$	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CL_bdnuenumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CL_bdnumunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
${\tt CL_bdnumunutau}$	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{ u}_{ au}\gamma_{\mu}(1-\gamma_5) u_{\mu})$	\mathbf{C}
${\tt CL_bdnutaunumu}$	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CL_bdnuenutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CL_bdnutaunue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{ u}_e\gamma_{\mu}(1-\gamma_5) u_{ au})$	\mathbf{C}
CR_bdnuenue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_bdnumunumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bdnutaunutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}b_R)(ar{ u}_{ au}\gamma_{\mu}(1-\gamma_5) u_{ au})$	\mathbf{C}
CR_bdnuenumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_bdnumunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bdnumunutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CR_bdnutaunumu	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}b_R)(ar{ u}_{\mu}\gamma_{\mu}(1-\gamma_5) u_{ au})$	\mathbf{C}
CR_bdnuenutau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_bdnutaunue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	С

sbmue

WC name	Operator	Type
C9_bsemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}b_L)(\bar{\mu}\gamma_{\mu}e)$	C
C9p_bsemu	$rac{4 \overset{\leftarrow}{V_F}}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16\pi^2} (ar{s}_R \gamma^\mu b_R) (ar{\mu} \gamma_\mu e)$	\mathbf{C}
C10_bsemu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{\mu}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
C10p_bsemu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
CS_bsemu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{\mu}e)$	\mathbf{C}
CSp_bsemu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Rb_L)(ar{\mu}e)$	\mathbf{C}
CP_bsemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{\mu}\gamma_5e)$	\mathbf{C}
CPp_bsemu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Rb_L)(\bar{\mu}\gamma_5e)$	С

sbemu

WC name	Operator	Type
C9_bsmue	$rac{4G_F}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16\pi^2} (\bar{s}_L \gamma^{\mu} b_L) (\bar{e} \gamma_{\mu} \mu)$	C
C9p_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}b_R)(\bar{e}\gamma_{\mu}\mu)$	\mathbf{C}
C10_bsmue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{e}\gamma_{\mu}\gamma_5\mu)$	\mathbf{C}
C10p_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^{\mu} b_R) (\bar{e}\gamma_{\mu}\gamma_5 \mu)$	\mathbf{C}
CS_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{e}\mu)$	\mathbf{C}
CSp_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Rb_L)(\bar{e}\mu)$	\mathbf{C}
CP_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{e}\gamma_5\mu)$	\mathbf{C}
CPp_bsmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_R b_L)(\bar{e}\gamma_5 \mu)$	\mathbf{C}

sbtaue

WC name	Operator	Type
C9_bsetau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_L \gamma^{\mu} b_L) (\bar{\tau} \gamma_{\mu} e)$	\mathbf{C}
C9p_bsetau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{ au}\gamma_{\mu}e)$	\mathbf{C}
C10_bsetau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{ au}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
C10p_bsetau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}rac{e^{2}}{16\pi^{2}}(ar{s}_{R}\gamma^{\mu}b_{R})(ar{ au}\gamma_{\mu}\gamma_{5}e)$	\mathbf{C}
CS_bsetau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_L b_R)(\bar{\tau}e)$	\mathbf{C}
CSp_bsetau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_R b_L)(\bar{\tau}e)$	\mathbf{C}
CP_bsetau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_L b_R)(\bar{\tau}\gamma_5 e)$	\mathbf{C}
CPp_bsetau	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Rb_L)(\bar{\tau}\gamma_5e)$	\mathbf{C}

sbetau

WC name	Operator	Type
C9_bstaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{e}\gamma_{\mu} au)$	\overline{C}
C9p_bstaue	$rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^\mu b_R)(ar{e}\gamma_\mu au)$	\mathbf{C}
C10_bstaue	$rac{4 \widetilde{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_L \gamma^\mu b_L) (ar{e} \gamma_\mu \gamma_5 au)$	\mathbf{C}
C10p_bstaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^\mu b_R)(ar{e}\gamma_\mu\gamma_5 au)$	\mathbf{C}
CS_bstaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{e} au)$	\mathbf{C}
CSp_bstaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Rb_L)(ar{e} au)$	\mathbf{C}
CP_bstaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(\bar{s}_Lb_R)(\bar{e}\gamma_5 au)$	\mathbf{C}
CPp_bstaue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*\frac{e^2}{16\pi^2}m_b(\bar{s}_Rb_L)(\bar{e}\gamma_5\tau)$	С

sbtaumu

WC name	Operator	Type
C9_bsmutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}b_L)(ar{ au}\gamma_{\mu}\mu)$	C
C9p_bsmutau	$rac{4 \overset{\longleftarrow}{V_F}}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_R \gamma^\mu b_R) (ar{ au} \gamma_\mu \mu)$	\mathbf{C}
C10_bsmutau	$rac{4 \overleftarrow{G_F}}{\sqrt{2}} V_{tb} V_{ts}^* rac{e^2}{16 \pi^2} (ar{s}_L \gamma^\mu b_L) (ar{ au} \gamma_\mu \gamma_5 \mu)$	\mathbf{C}
C10p_bsmutau	$rac{4ar{G_F}}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^\mu b_R)(ar{ au}\gamma_\mu\gamma_5\mu)$	\mathbf{C}
CS_bsmutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Lb_R)(ar{ au}\mu)$	\mathbf{C}
CSp_bsmutau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Rb_L)(ar{ au}\mu)$	\mathbf{C}
CP_bsmutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Lb_R)(ar{ au}\gamma_5\mu)$	\mathbf{C}
CPp_bsmutau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}rac{e^{2}}{16\pi^{2}}m_{b}(ar{s}_{R}b_{L})(ar{ au}\gamma_{5}\mu)$	\mathbf{C}

${\tt sbmutau}$

WC name	Operator	Type
C9_bstaumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_L \gamma^{\mu} b_L) (\bar{\mu} \gamma_{\mu} au)$	C
C9p_bstaumu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu} au)$	\mathbf{C}
C10_bstaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}rac{e^{2}}{16\pi^{2}}(ar{s}_{L}\gamma^{\mu}b_{L})(ar{\mu}\gamma_{\mu}\gamma_{5} au)$	\mathbf{C}
C10p_bstaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu}\gamma_5 au)$	\mathbf{C}
CS_bstaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^*rac{e^2}{16\pi^2}m_b(ar{s}_Lb_R)(ar{\mu} au)$	\mathbf{C}
CSp_bstaumu	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{tb}V_{ts}^{*}\frac{e^{2}}{16\pi^{2}}m_{b}(\bar{s}_{R}b_{L})(\bar{\mu} au)$	\mathbf{C}
CP_bstaumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_L b_R)(\bar{\mu}\gamma_5 au)$	\mathbf{C}
CPp_bstaumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{ts}^* \frac{e^2}{16\pi^2}m_b(\bar{s}_R b_L)(\bar{\mu}\gamma_5 au)$	\mathbf{C}

${\tt dbmue}$

WC name	Operator	Type
C9_bdemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{\mu}\gamma_{\mu}e)$	\overline{C}
C9p_bdemu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}b_R)(ar{\mu}\gamma_{\mu}e)$	\mathbf{C}
C10_bdemu	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}b_L)(ar{\mu}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
C10p_bdemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{\mu}\gamma_{\mu}\gamma_5 e)$	\mathbf{C}
CS_bdemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu}e)$	\mathbf{C}
CSp_bdemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu}e)$	\mathbf{C}
CP_bdemu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu}\gamma_5e)$	\mathbf{C}
CPp_bdemu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu}\gamma_5 e)$	С

dbemu

WC name	Operator	Type
C9_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}b_L)(\bar{e}\gamma_{\mu}\mu)$	C
C9p_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{e}\gamma_{\mu}\mu)$	\mathbf{C}
C10_bdmue	$\frac{4 G_F}{\sqrt{2}} V_{tb} V_{td}^* \frac{e^2}{16\pi^2} (\bar{d}_L \gamma^{\mu} b_L) (\bar{e} \gamma_{\mu} \gamma_5 \mu)$	\mathbf{C}
C10p_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}b_R)(\bar{e}\gamma_{\mu}\gamma_5\mu)$	\mathbf{C}
CS_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{e}\mu)$	\mathbf{C}
CSp_bdmue	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{e}\mu)$	\mathbf{C}
CP_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{e}\gamma_5\mu)$	\mathbf{C}
CPp_bdmue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{e}\gamma_5\mu)$	\mathbf{C}

dbtaue

WC name	Operator	Type
C9_bdetau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}b_L)(ar{ au}\gamma_{\mu}e)$	\mathbf{C}
C9p_bdetau	$rac{4\dot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{ au}\gamma_\mu e)$	\mathbf{C}
C10_bdetau	$rac{4\dot{G_F}}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{ au}\gamma_\mu\gamma_5 e)$	\mathbf{C}
C10p_bdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{ au}\gamma_\mu\gamma_5 e)$	\mathbf{C}
CS_bdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(ar{d}_Lb_R)(ar{ au}e)$	\mathbf{C}
CSp_bdetau	$rac{4 \dot{G}_F}{\sqrt{2}} V_{tb} V_{td}^* rac{e^2}{16\pi^2} m_b(ar{d}_R b_L) (ar{ au} e)$	\mathbf{C}
CP_bdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{ au}\gamma_5e)$	\mathbf{C}
CPp_bdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(ar{d}_Rb_L)(ar{ au}\gamma_5e)$	\mathbf{C}

dbetau

WC name	Operator	Type
C9_bdtaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}b_L)(ar{e}\gamma_{\mu} au)$	\overline{C}
C9p_bdtaue	$rac{4ar{V_F}}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{e}\gamma_\mu au)$	\mathbf{C}
C10_bdtaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu b_L)(ar{e}\gamma_\mu\gamma_5 au)$	\mathbf{C}
C10p_bdtaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu b_R)(ar{e}\gamma_\mu\gamma_5 au)$	\mathbf{C}
CS_bdtaue	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}rac{e^{2}}{16\pi^{2}}m_{b}(\bar{d}_{L}b_{R})(\bar{e} au)$	\mathbf{C}
CSp_bdtaue	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(ar{d}_Rb_L)(ar{e} au)$	\mathbf{C}
CP_bdtaue	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{e}\gamma_5\tau)$	\mathbf{C}
CPp_bdtaue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{e}\gamma_5\tau)$	С

dbtaumu

WC name	Operator	Type
C9_bdmutau	$rac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}b_L)(ar{ au}\gamma_{\mu}\mu)$	C
C9p_bdmutau	$rac{4 \dot{G}_F}{\sqrt{2}} V_{tb} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_R \gamma^\mu b_R) (ar{ au} \gamma_\mu \mu)$	\mathbf{C}
C10_bdmutau	$rac{4 \dot{G}_F}{\sqrt{2}} V_{tb} V_{td}^* rac{e^2}{16\pi^2} (ar{d}_L \gamma^\mu b_L) (ar{ au} \gamma_\mu \gamma_5 \mu)$	\mathbf{C}
C10p_bdmutau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{R}\gamma^{\mu}b_{R})(ar{ au}\gamma_{\mu}\gamma_{5}\mu)$	\mathbf{C}
CS_bdmutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{ au}\mu)$	\mathbf{C}
CSp_bdmutau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{ au}\mu)$	\mathbf{C}
CP_bdmutau	$rac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*rac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{ au}\gamma_5\mu)$	\mathbf{C}
CPp_bdmutau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}rac{e^{2}}{16\pi^{2}}m_{b}(ar{d}_{R}b_{L})(ar{ au}\gamma_{5}\mu)$	\mathbf{C}

${\tt dbmutau}$

WC name	Operator	Type
C9_bdtaumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^* \frac{e^2}{16\pi^2} (\bar{d}_L \gamma^{\mu} b_L) (\bar{\mu} \gamma_{\mu} au)$	C
C9p_bdtaumu	$rac{4 V_{T}^{2}}{\sqrt{2}} V_{tb} V_{td}^{*} rac{e^{2}}{16 \pi^{2}} (ar{d}_{R} \gamma^{\mu} b_{R}) (ar{\mu} \gamma_{\mu} au)$	\mathbf{C}
C10_bdtaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{L}\gamma^{\mu}b_{L})(ar{\mu}\gamma_{\mu}\gamma_{5} au)$	\mathbf{C}
C10p_bdtaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{tb}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{R}\gamma^{\mu}b_{R})(ar{\mu}\gamma_{\mu}\gamma_{5} au)$	\mathbf{C}
CS_bdtaumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu} au)$	\mathbf{C}
CSp_bdtaumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu} au)$	\mathbf{C}
CP_bdtaumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Lb_R)(\bar{\mu}\gamma_5\tau)$	\mathbf{C}
CPp_bdtaumu	$\frac{4G_F}{\sqrt{2}}V_{tb}V_{td}^*\frac{e^2}{16\pi^2}m_b(\bar{d}_Rb_L)(\bar{\mu}\gamma_5\tau)$	\mathbf{C}

${\tt sdemu}$

WC name	Operator	Type
C9_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{\mu}\gamma_{\mu}e)$	C
C9p_sdemu	$rac{4 \stackrel{\longleftarrow}{V_F}}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16\pi^2} (ar{d}_R \gamma^\mu s_R) (ar{\mu} \gamma_\mu e)$	\mathbf{C}
C10_sdemu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^\mu s_L)(ar{\mu}\gamma_\mu\gamma_5 e)$	\mathbf{C}
C10p_sdemu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu s_R)(ar{\mu}\gamma_\mu\gamma_5 e)$	\mathbf{C}
CS_sdemu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\mu}e)$	\mathbf{C}
CSp_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{\mu}e)$	\mathbf{C}
CP_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\mu}\gamma_5 e)$	\mathbf{C}
CPp_sdemu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{\mu}\gamma_5 e)$	С

sdmue

WC name	Operator	Type
C9_sdmue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}\mu)$	C
C9p_sdmue	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_R \gamma^\mu s_R) (ar{e} \gamma_\mu \mu)$	\mathbf{C}
C10_sdmue	$rac{4ar{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{L}\gamma^{\mu}s_{L})(ar{e}\gamma_{\mu}\gamma_{5}\mu)$	\mathbf{C}
C10p_sdmue	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_R \gamma^\mu s_R) (ar{e} \gamma_\mu \gamma_5 \mu)$	\mathbf{C}
CS_sdmue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e}\mu)$	\mathbf{C}
CSp_sdmue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{e}\mu)$	\mathbf{C}
CP_sdmue	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} m_s (ar{d}_L s_R) (ar{e} \gamma_5 \mu)$	\mathbf{C}
CPp_sdmue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{e}\gamma_5\mu)$	\mathbf{C}

sdetau

WC name	Operator	Type
C9_sdetau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}s_L)(ar{ au}\gamma_{\mu}e)$	\mathbf{C}
C9p_sdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu s_R)(ar{ au}\gamma_\mu e)$	\mathbf{C}
C10_sdetau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{L}\gamma^{\mu}s_{L})(ar{ au}\gamma_{\mu}\gamma_{5}e)$	\mathbf{C}
C10p_sdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu s_R)(ar{ au}\gamma_\mu\gamma_5 e)$	\mathbf{C}
CS_sdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_L s_R)(ar{ au}e)$	\mathbf{C}
CSp_sdetau	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}m_{s}(ar{d}_{R}s_{L})(ar{ au}e)$	\mathbf{C}
CP_sdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(\bar{d}_Ls_R)(\bar{ au}\gamma_5 e)$	\mathbf{C}
CPp_sdetau	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_Rs_L)(ar{ au}\gamma_5e)$	\mathbf{C}

sdtaue

WC name	Operator	Type
C9_sdtaue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}\tau)$	C
C9p_sdtaue	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} (ar{d}_R \gamma^\mu s_R) (ar{e} \gamma_\mu au)$	\mathbf{C}
C10_sdtaue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2} (\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}\gamma_5\tau)$	\mathbf{C}
C10p_sdtaue	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}s_R)(ar{e}\gamma_{\mu}\gamma_5 au)$	\mathbf{C}
CS_sdtaue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e} au)$	\mathbf{C}
CSp_sdtaue	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}m_{s}(ar{d}_{R}s_{L})(ar{e} au)$	\mathbf{C}
CP_sdtaue	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e}\gamma_5 au)$	\mathbf{C}
CPp_sdtaue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{e}\gamma_5\tau)$	\mathbf{C}

sdmutau

WC name	Operator	Type
C9_sdmutau	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{\tau}\gamma_{\mu}\mu)$	С
C9p_sdmutau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^{\mu}s_R)(ar{ au}\gamma_{\mu}\mu)$	\mathbf{C}
C10_sdmutau	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}s_L)(ar{ au}\gamma_{\mu}\gamma_{5}\mu)$	\mathbf{C}
C10p_sdmutau	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_R\gamma^\mu s_R)(ar{ au}\gamma_\mu\gamma_5\mu)$	\mathbf{C}
CS_sdmutau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_L s_R)(ar{ au}\mu)$	\mathbf{C}
CSp_sdmutau	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* rac{e^2}{16 \pi^2} m_s(ar{d}_R s_L) (ar{ au} \mu)$	\mathbf{C}
CP_sdmutau	$rac{4ar{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}m_{s}(ar{d}_{L}s_{R})(ar{ au}\gamma_{5}\mu)$	\mathbf{C}
CPp_sdmutau	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_R s_L)(ar{ au}\gamma_5\mu)$	\mathbf{C}

${\tt sdtaumu}$

WC name	Operator	Type
C9_sdtaumu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}(ar{d}_L\gamma^{\mu}s_L)(ar{\mu}\gamma_{\mu} au)$	C
C9p_sdtaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{R}\gamma^{\mu}s_{R})(ar{\mu}\gamma_{\mu} au)$	\mathbf{C}
C10_sdtaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{L}\gamma^{\mu}s_{L})(ar{\mu}\gamma_{\mu}\gamma_{5} au)$	\mathbf{C}
C10p_sdtaumu	$rac{4\dot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}rac{e^{2}}{16\pi^{2}}(ar{d}_{R}\gamma^{\mu}s_{R})(ar{\mu}\gamma_{\mu}\gamma_{5} au)$	\mathbf{C}
CS_sdtaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_L s_R)(ar{\mu} au)$	\mathbf{C}
CSp_sdtaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_R s_L)(ar{\mu} au)$	\mathbf{C}
CP_sdtaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(\bar{d}_Ls_R)(\bar{\mu}\gamma_5 au)$	\mathbf{C}
CPp_sdtaumu	$rac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*rac{e^2}{16\pi^2}m_s(ar{d}_R s_L)(ar{\mu}\gamma_5 au)$	\mathbf{C}

cbenu

WC name	Operator	Type
CVL_bcenue	$-\frac{4G_F}{\sqrt{2}}V_{cb}(\bar{c}_L\gamma^{\mu}b_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	C
CVR_bcenue	$-rac{4G_F^{\Gamma}}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^{\mu}b_R)(ar{e}_L\gamma_{\mu} u_{eL})$	\mathbf{C}
CSR_bcenue	$-\frac{4 \zeta_F^2}{\sqrt{2}} V_{cb}(\bar{c}_L b_R)(\bar{e}_R \nu_{eL})$	$^{\mathrm{C}}$
CSL_bcenue	$-\frac{4\widetilde{G_F}}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{e}_R u_{eL})$	\mathbf{C}
CT_bcenue	$-rac{4G_F}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_bcenumu	$-rac{4G_F}{\sqrt{2}}V_{cb}(ar{c}_L\gamma^\mu b_L)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_bcenumu	$-rac{4G_F}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_bcenumu	$-\frac{4G_F}{\sqrt{2}}V_{cb}(\bar{c}_L b_R)(\bar{e}_R \nu_{\mu L})$	\mathbf{C}
CSL_bcenumu	$-\frac{4G_F}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{e}_R u_{\mu L})$	\mathbf{C}
CT_bcenumu	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_bcenutau	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{cb}(ar{c}_L\gamma^\mu b_L)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_bcenutau	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_bcenutau	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cb}(ar{c}_Lb_R)(ar{e}_R u_{ au L})$	\mathbf{C}
CSL_bcenutau	$-rac{4\overset{C}{G_F}}{\sqrt{2}}V_{cb}(ar{c}_Rb_L)(ar{e}_R u_{ au L})$	\mathbf{C}
CT_bcenutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_R\sigma^{\mu\nu}b_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{\tau L})$	С

ubenu

WC name	Operator	Type
CVL_buenue	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^{\mu}b_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	C
CVR_buenue	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ub}(ar{u}_R\gamma^\mu b_R)(ar{e}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_buenue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_Lb_R)(\bar{e}_R\nu_{eL})$	$^{\mathrm{C}}$
CSL_buenue	$-\frac{4\check{G}_{F}}{\sqrt{2}}V_{ub}(\bar{u}_{R}b_{L})(\bar{e}_{R}\nu_{eL})$	$^{\mathrm{C}}$
CT_buenue	$-rac{4reve{Q_F}}{\sqrt{2}}V_{ub}(ar{u}_R\sigma^{\mu u}b_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_buenumu	$-rac{4reve{G_F}}{\sqrt{2}}V_{ub}(ar{u}_L\gamma^\mu b_L)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_buenumu	$-rac{4reve{G_F}}{\sqrt{2}}V_{ub}(ar{u}_R\gamma^\mu b_R)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_buenumu	$-rac{4\overset{\sim}{G_F}}{\sqrt{2}}V_{ub}(\bar{u}_Lb_R)(\bar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_buenumu	$-\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ub}(\bar{u}_{R}b_{L})(\bar{e}_{R}\nu_{\mu L})$	\mathbf{C}
CT_buenumu	$-rac{4reve{Q_F}}{\sqrt{2}}V_{ub}(ar{u}_R\sigma^{\mu u}b_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_buenutau	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{ub}(ar{u}_L\gamma^\mu b_L)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_buenutau	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{ub}(ar{u}_R\gamma^\mu b_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_buenutau	$-\frac{4 \tilde{G}_F^c}{\sqrt{2}} V_{ub}(\bar{u}_L b_R)(\bar{e}_R \nu_{\tau L})$	\mathbf{C}
CSL_buenutau	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CT_buenutau	$-rac{4 ilde{G}_F^2}{\sqrt{2}}V_{ub}(ar{u}_R\sigma^{\mu u}b_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	С

usenu

WC name	Operator	Type
CVL_suenue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	C
CVR_suenue	$-rac{4ar{Q}_F^C}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_suenue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{e}_R \nu_{eL})$	\mathbf{C}
CSL_suenue	$-\frac{4 \tilde{G}_F}{\sqrt{2}} V_{us}(\bar{u}_R s_L)(\bar{e}_R \nu_{eL})$	\mathbf{C}
CT_suenue	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^\mu s_R)(\bar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_suenumu	$-rac{4\check{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Ls_R)(\bar{e}_R u_{\mu L})$	\mathbf{C}
CSL_suenumu	$-rac{4\check{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R u_{\mu L})$	\mathbf{C}
CT_suenumu	$-rac{4rac{ec{G}_F}{\sqrt{2}}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_suenutau	$-rac{4reve{Q}_F^2}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_suenutau	$-\frac{4\check{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Ls_R)(\bar{e}_R u_{ au L})$	\mathbf{C}
CSL_suenutau	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CT_suenutau	$-rac{4 ilde{G}_F^2}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	С

csenu

WC name	Operator	Type
CVL_scenue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L\gamma^{\mu}s_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	C
CVR_scenue	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_scenue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L s_R)(\bar{e}_R \nu_{eL})$	\mathbf{C}
CSL_scenue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_Rs_L)(\bar{e}_R\nu_{eL})$	\mathbf{C}
CT_scenue	$-rac{4\overset{.}{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_scenumu	$-rac{4\overset{.}{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_scenumu	$-rac{4\overset{.}{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_scenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L s_R)(ar{e}_R u_{\mu L})$	\mathbf{C}
CSL_scenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_Rs_L)(ar{e}_R u_{\mu L})$	\mathbf{C}
CT_scenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_scenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_scenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_scenutau	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L s_R)(\bar{e}_R \nu_{\tau L})$	\mathbf{C}
CSL_scenutau	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_R s_L)(\bar{e}_R \nu_{\tau L})$	\mathbf{C}
CT_scenutau	$-rac{4 ilde{G}_F^c}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	С

${\tt cdenu}$

WC name	Operator	Type
CVL_dcenue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_L\gamma^\mu d_L)(\bar{e}_L\gamma_\mu\nu_{eL})$	C
CVR_dcenue	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cd}(\bar{c}_R\gamma^\mu d_R)(\bar{e}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_dcenue	$-\frac{4\check{G_F}}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{e}_R\nu_{eL})$	$^{\mathrm{C}}$
CSL_dcenue	$-\frac{4\check{G_F}}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{e}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_dcenue	$-rac{4ar{G_F}}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_dcenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{cd}(ar{c}_L\gamma^\mu d_L)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_dcenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{cd}(ar{c}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_dcenumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_dcenumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_dcenumu	$-rac{4rac{\zeta_F}{\sqrt{2}}}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_dcenutau	$-rac{4reve{Q}_F^2}{\sqrt{2}}V_{cd}(ar{c}_L\gamma^\mu d_L)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_dcenutau	$-rac{4reve{G_F}}{\sqrt{2}}V_{cd}(ar{c}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_dcenutau	$-\frac{4\overset{\zeta}{G_F}}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{e}_R u_{\tau L})$	$^{\mathrm{C}}$
CSL_dcenutau	$-rac{4\overset{\circ}{N_T}}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{e}_R u_{\tau L})$	$^{\mathrm{C}}$
CT_dcenutau	$-rac{4 ilde{G}_F^2}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	С

${\tt cbmunu}$

WC name	Operator	Type
CVL_bcmunue	$-\frac{4G_F}{\sqrt{2}}V_{cb}(\bar{c}_L\gamma^{\mu}b_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	C
CVR_bcmunue	$-rac{4reve{G}_F^2}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{\mu}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_bcmunue	$-rac{4\widetilde{G}_F^c}{\sqrt{2}}V_{cb}(ar{c}_Lb_R)(ar{\mu}_R u_{eL})$	$^{\mathrm{C}}$
CSL_bcmunue	$-\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{\mu}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_bcmunue	$-rac{4\check{G}_F^2}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_bcmunumu	$-rac{4reve{G}_F}{\sqrt{2}}V_{cb}(ar{c}_L\gamma^\mu b_L)(ar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_bcmunumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_bcmunumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Lb_R)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CSL_bcmunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{\mu}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_bcmunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_bcmunutau	$-rac{4 \widetilde{G}_F}{\sqrt{2}} V_{cb} (ar{c}_L \gamma^\mu b_L) (ar{\mu}_L \gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_bcmunutau	$-rac{4 \widetilde{G}_F}{\sqrt{2}} V_{cb} (ar{c}_R \gamma^\mu b_R) (ar{\mu}_L \gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_bcmunutau	$-\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cb}(\bar{c}_Lb_R)(\bar{\mu}_R\nu_{\tau L})$	$^{\mathrm{C}}$
CSL_bcmunutau	$-rac{4\widetilde{G}_F^c}{\sqrt{2}}V_{cb}(ar{c}_Rb_L)(ar{\mu}_R u_{ au L})$	$^{\mathrm{C}}$
CT_bcmunutau	$-rac{4\overleftarrow{G_F}}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	\mathbf{C}

ubmunu

WC name	Operator	Type
CVL_bumunue	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^{\mu}b_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	C
CVR_bumunue	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ub}(ar{u}_R\gamma^\mu b_R)(ar{\mu}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_bumunue	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{ub}(ar{u}_Lb_R)(ar{\mu}_R u_{eL})$	$^{\mathrm{C}}$
CSL_bumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{\mu}_R u_{eL})$	$^{\mathrm{C}}$
CT_bumunue	$-rac{4\check{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_R\sigma^{\mu u}b_L)(\bar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_bumunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^\mu b_L)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_bumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_R\gamma^{\mu}b_R)(\bar{\mu}_L\gamma_{\mu}\nu_{\mu L})$	$^{\mathrm{C}}$
CSR_bumunumu	$-\frac{4\tilde{G}_{F}^{r}}{\sqrt{2}}V_{ub}(\bar{u}_{L}b_{R})(\bar{\mu}_{R}\nu_{\mu L})$	$^{\mathrm{C}}$
CSL_bumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CT_bumunumu	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ub}(\bar{u}_R\sigma^{\mu u}b_L)(\bar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_bumunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^\mu b_L)(\bar{\mu}_L\gamma_\mu u_{\tau L})$	$^{\mathrm{C}}$
CVR_bumunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ub}(\bar{u}_R\gamma^\mu b_R)(\bar{\mu}_L\gamma_\mu u_{\tau L})$	$^{\mathrm{C}}$
CSR_bumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_Lb_R)(\bar{\mu}_R u_{\tau L})$	$^{\mathrm{C}}$
CSL_bumunutau	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ub}(ar{u}_Rb_L)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CT_bumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_R\sigma^{\mu\nu}b_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{\tau L})$	C

usmunu

WC name	Operator	Type
CVL_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	C
CVR_sumunue	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_sumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{eL})$	$^{\mathrm{C}}$
CSL_sumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_R s_L)(\bar{\mu}_R \nu_{eL})$	$^{\mathrm{C}}$
CT_sumunue	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu u}s_L)(\bar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_sumunumu	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^\mu s_L)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_sumunumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_sumunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_Ls_R)(\bar{\mu}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_sumunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{\mu}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_sumunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu u}s_L)(\bar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_sumunutau	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^\mu s_L)(\bar{\mu}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_sumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^{\mu}s_R)(\bar{\mu}_L\gamma_{\mu}\nu_{\tau L})$	$^{\mathrm{C}}$
CSR_sumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{\tau L})$	$^{\mathrm{C}}$
CSL_sumunutau	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CT_sumunutau	$-rac{4reve{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	С

csmunu

WC name	Operator	Type
CVL_scmunue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L\gamma^{\mu}s_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	C
CVR_scmunue	$-rac{4rack{G}_F}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_scmunue	$-rac{4rac{G_F}{\sqrt{2}}}{\sqrt{2}}V_{cs}(ar{c}_L s_R)(ar{\mu}_R u_{eL})$	$^{\mathrm{C}}$
CSL_scmunue	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cs}(\bar{c}_Rs_L)(\bar{\mu}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_scmunue	$-rac{4reve{G}_F}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_scmunumu	$-rac{4reve{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L\gamma^\mu s_L)(ar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_scmunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{cs}(\bar{c}_R\gamma^\mu s_R)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_scmunumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cs}(\bar{c}_L s_R)(\bar{\mu}_R \nu_{\mu L})$	$^{\mathrm{C}}$
CSL_scmunumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cs}(\bar{c}_Rs_L)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CT_scmunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_scmunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{cs}(\bar{c}_L\gamma^\mu s_L)(\bar{\mu}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_scmunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{cs}(\bar{c}_R\gamma^\mu s_R)(\bar{\mu}_L\gamma_\mu u_{\tau L})$	$^{\mathrm{C}}$
CSR_scmunutau	$-rac{4Q_F^2}{\sqrt{2}}V_{cs}(ar{c}_L s_R)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CSL_scmunutau	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cs}(ar{c}_Rs_L)(ar{\mu}_R u_{ au L})$	$^{\mathrm{C}}$
CT_scmunutau	$-rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	С

${\tt cdmunu}$

WC name	Operator	Type
CVL_dcmunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{eL})$	C
CVR_dcmunue	$-rac{4reve{G}_F}{\sqrt{2}}V_{cd}(ar{c}_R\gamma^\mu d_R)(ar{\mu}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_dcmunue	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\mu}_R\nu_{eL})$	$^{\mathrm{C}}$
CSL_dcmunue	$-\frac{4\check{G}_F^2}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{\mu}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_dcmunue	$-rac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_R\sigma^{\mu u}d_L)(\bar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_dcmunumu	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{cd}(\bar{c}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_dcmunumu	$-rac{4rac{arphi_F}{\sqrt{2}}}{\sqrt{2}}V_{cd}(ar{c}_R\gamma^\mu d_R)(ar{\mu}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_dcmunumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CSL_dcmunumu	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CT_dcmunumu	$-rac{4\check{G}_F}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_dcmunutau	$-rac{4 \check{G}_F}{\sqrt{2}} V_{cd} (\bar{c}_L \gamma^\mu d_L) (\bar{\mu}_L \gamma_\mu u_{\tau L})$	$^{\mathrm{C}}$
CVR_dcmunutau	$-rac{4reve{G}_F}{\sqrt{2}}V_{cd}(ar{c}_R\gamma^\mu d_R)(ar{\mu}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_dcmunutau	$-\frac{4\check{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\mu}_R\nu_{\tau L})$	$^{\mathrm{C}}$
CSL_dcmunutau	$-rac{4\widetilde{G}_F^c}{\sqrt{2}}V_{cd}(ar{c}_Rd_L)(ar{\mu}_R u_{ au L})$	$^{\mathrm{C}}$
CT_dcmunutau	$-rac{4\overleftarrow{G_F}}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	\mathbf{C}

cbtaunu

WC name	Operator	Type
CVL_bctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cb}(\bar{c}_L\gamma^{\mu}b_L)(\bar{\tau}_L\gamma_{\mu}\nu_{eL})$	C
CVR_bctaunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{ au}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_bctaunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Lb_R)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CSL_bctaunue	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CT_bctaunue	$-rac{4 \widetilde{G_F}}{\sqrt{2}} V_{cb} (\bar{c}_R \sigma^{\mu u} b_L) (\bar{ au}_R \sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_bctaunumu	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(ar{c}_L\gamma^\mu b_L)(ar{ au}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_bctaunumu	$-rac{4 ar{G_F}}{\sqrt{2}} V_{cb} (ar{c}_R \gamma^\mu b_R) (ar{ au}_L \gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_bctaunumu	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Lb_R)(\bar{\tau}_R u_{\mu L})$	\mathbf{C}
CSL_bctaunumu	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Rb_L)(\bar{ au}_R u_{\mu L})$	\mathbf{C}
CT_bctaunumu	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{ au}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_bctaunutau	$-rac{4 ilde{G}_F}{\sqrt{2}}V_{cb}(ar{c}_L\gamma^\mu b_L)(ar{ au}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_bctaunutau	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(ar{c}_R\gamma^\mu b_R)(ar{ au}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_bctaunutau	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(\bar{c}_Lb_R)(\bar{\tau}_R u_{\tau L})$	\mathbf{C}
CSL_bctaunutau	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{cb}(ar{c}_Rb_L)(ar{ au}_R u_{ au L})$	\mathbf{C}
CT_bctaunutau	$-rac{4 ilde{G}_F^2}{\sqrt{2}}V_{cb}(ar{c}_R\sigma^{\mu u}b_L)(ar{ au}_R\sigma_{\mu u} u_{ au L})$	C

ubtaunu

WC name	Operator	Type
CVL_butaunue	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^{\mu}b_L)(\bar{\tau}_L\gamma_{\mu}\nu_{eL})$	C
CVR_butaunue	$-rac{4\overset{Q}{G_F}}{\sqrt{2}}V_{ub}(\bar{u}_R\gamma^{\mu}b_R)(\bar{ au}_L\gamma_{\mu} u_{eL})$	$^{\mathrm{C}}$
CSR_butaunue	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_Lb_R)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CSL_butaunue	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CT_butaunue	$-rac{4G_F}{\sqrt{2}}V_{ub}(ar{u}_R\sigma^{\mu u}b_L)(ar{ au}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_butaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^{\mu}b_L)(\bar{\tau}_L\gamma_{\mu}\nu_{\mu L})$	\mathbf{C}
CVR_butaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_R\gamma^\mu b_R)(\bar{\tau}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CSR_butaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L b_R)(\bar{\tau}_R \nu_{\mu L})$	\mathbf{C}
CSL_butaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{\tau}_R\nu_{\mu L})$	\mathbf{C}
CT_butaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_R\sigma^{\mu\nu}b_L)(\bar{\tau}_R\sigma_{\mu\nu}\nu_{\mu L})$	\mathbf{C}
$\mathtt{CVL_butaunutau}$	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_L\gamma^{\mu}b_L)(\bar{\tau}_L\gamma_{\mu}\nu_{\tau L})$	\mathbf{C}
CVR_butaunutau	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_R\gamma^{\mu}b_R)(\bar{\tau}_L\gamma_{\mu}\nu_{\tau L})$	\mathbf{C}
CSR_butaunutau	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_Lb_R)(\bar{\tau}_R\nu_{\tau L})$	\mathbf{C}
CSL_butaunutau	$-\frac{4G_F}{\sqrt{2}}V_{ub}(\bar{u}_Rb_L)(\bar{\tau}_R\nu_{\tau L})$	\mathbf{C}
CT_butaunutau	$-\frac{4\check{G}_F}{\sqrt{2}}V_{ub}(\bar{u}_R\sigma^{\mu\nu}b_L)(\bar{\tau}_R\sigma_{\mu\nu}\nu_{\tau L})$	С

ustaunu

WC name	Operator	Type
CVL_sutaunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{\tau}_L\gamma_{\mu}\nu_{eL})$	C
CVR_sutaunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_sutaunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{ au}_R u_{eL})$	$^{\mathrm{C}}$
CSL_sutaunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{ au}_R u_{eL})$	$^{\mathrm{C}}$
CT_sutaunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_sutaunumu	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{ au}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_sutaunumu	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_sutaunumu	$-rac{4\ddot{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{ au}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_sutaunumu	$-rac{4\ddot{G}_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{ au}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_sutaunumu	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_sutaunutau	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{ au}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_sutaunutau	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_sutaunutau	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_Ls_R)(ar{ au}_R u_{ au L})$	$^{\mathrm{C}}$
CSL_sutaunutau	$-rac{4ar{G}_F^2}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{ au}_R u_{ au L})$	\mathbf{C}
CT_sutaunutau	$-rac{4reve{Q}_F^2}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{ au L})$	C

cstaunu

WC name	Operator	Type
CVL_sctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L\gamma^{\mu}s_L)(\bar{\tau}_L\gamma_{\mu}\nu_{eL})$	C
CVR_sctaunue	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_sctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cs}(\bar{c}_L s_R)(\bar{\tau}_R \nu_{eL})$	\mathbf{C}
CSL_sctaunue	$-\frac{4G_F^2}{\sqrt{2}}V_{cs}(\bar{c}_Rs_L)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CT_sctaunue	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_sctaunumu	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cs}(ar{c}_L\gamma^\mu s_L)(ar{ au}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_sctaunumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_sctaunumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L s_R)(ar{ au}_R u_{\mu L})$	\mathbf{C}
CSL_sctaunumu	$-rac{4\overset{\circ}{V_L}}{\sqrt{2}}V_{cs}(ar{c}_Rs_L)(ar{ au}_R u_{\mu L})$	\mathbf{C}
CT_sctaunumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_sctaunutau	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_L\gamma^\mu s_L)(ar{ au}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_sctaunutau	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{cs}(ar{c}_R\gamma^\mu s_R)(ar{ au}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_sctaunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cs}(\bar{c}_L s_R)(\bar{\tau}_R \nu_{\tau L})$	\mathbf{C}
CSL_sctaunutau	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cs}(ar{c}_Rs_L)(ar{ au}_R u_{ au L})$	$^{\mathrm{C}}$
CT_sctaunutau	$-rac{4\widetilde{Q}_F^2}{\sqrt{2}}V_{cs}(ar{c}_R\sigma^{\mu u}s_L)(ar{ au}_R\sigma_{\mu u} u_{ au L})$	С

cdtaunu

WC name	Operator	Type
CVL_dctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_L\gamma^\mu d_L)(\bar{\tau}_L\gamma_\mu\nu_{eL})$	C
CVR_dctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_R\gamma^\mu d_R)(\bar{\tau}_L\gamma_\mu\nu_{eL})$	$^{\mathrm{C}}$
CSR_dctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CSL_dctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{\tau}_R\nu_{eL})$	\mathbf{C}
CT_dctaunue	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_R\sigma^{\mu\nu}d_L)(\bar{\tau}_R\sigma_{\mu\nu}\nu_{eL})$	\mathbf{C}
CVL_dctaunumu	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_L\gamma^\mu d_L)(\bar{\tau}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CVR_dctaunumu	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_R\gamma^\mu d_R)(\bar{\tau}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CSR_dctaunumu	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\tau}_R\nu_{\mu L})$	\mathbf{C}
CSL_dctaunumu	$-\frac{4G_F}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{\tau}_R\nu_{\mu L})$	\mathbf{C}
CT_dctaunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_R\sigma^{\mu\nu}d_L)(\bar{\tau}_R\sigma_{\mu\nu}\nu_{\mu L})$	\mathbf{C}
CVL_dctaunutau	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cd}(ar{c}_L\gamma^\mu d_L)(ar{ au}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_dctaunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_R\gamma^\mu d_R)(\bar{\tau}_L\gamma_\mu\nu_{\tau L})$	\mathbf{C}
CSR_dctaunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{cd}(\bar{c}_Ld_R)(\bar{\tau}_R\nu_{\tau L})$	\mathbf{C}
CSL_dctaunutau	$-rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{cd}(\bar{c}_Rd_L)(\bar{ au}_R u_{ au L})$	$^{\mathrm{C}}$
CT_dctaunutau	$-rac{4 ilde{Q}_F^2}{\sqrt{2}}V_{cd}(ar{c}_R\sigma^{\mu u}d_L)(ar{ au}_R\sigma_{\mu u} u_{ au L})$	С

udenu

WC name	Operator	Type
CVL_duenue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^{\mu}d_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	C
CVR_duenue	$-rac{4\widetilde{G}_F^c}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_duenue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{e}_R\nu_{eL})$	\mathbf{C}
CSL_duenue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{e}_R\nu_{eL})$	\mathbf{C}
CT_duenue	$-rac{4\check{G}_F}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_duenumu	$-rac{4 \check{G}_F}{\sqrt{2}} V_{ud} (ar{u}_L \gamma^\mu d_L) (ar{e}_L \gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_duenumu	$-\frac{4\overset{.}{G_F}}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{e}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CSR_duenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{e}_R u_{\mu L})$	\mathbf{C}
CSL_duenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{e}_R u_{\mu L})$	\mathbf{C}
CT_duenumu	$-rac{4\check{G_F}}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu u}d_L)(\bar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_duenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_L\gamma^\mu d_L)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_duenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_duenutau	$-\frac{4 \tilde{G}_F}{\sqrt{2}} V_{ud}(\bar{u}_L d_R)(\bar{e}_R \nu_{\tau L})$	$^{\mathrm{C}}$
CSL_duenutau	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{e}_R u_{ au L})$	\mathbf{C}
CT_duenutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu\nu}d_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{\tau L})$	С

udmunu

WC name	Operator	Type
CVL_dumunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{eL})$	C
CVR_dumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu\nu_{eL})$	\mathbf{C}
CSR_dumunue	$-rac{4 ilde{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{\mu}_R u_{eL})$	\mathbf{C}
CSL_dumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\mu}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_dumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu\nu}d_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{eL})$	$^{\mathrm{C}}$
CVL_dumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	$^{\mathrm{C}}$
CVR_dumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	$^{\mathrm{C}}$
CSR_dumunumu	$-\frac{4\tilde{G}_{F}^{r}}{\sqrt{2}}V_{ud}(\bar{u}_{L}d_{R})(\bar{\mu}_{R}\nu_{\mu L})$	$^{\mathrm{C}}$
CSL_dumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\mu}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CT_dumunumu	$-rac{4\tilde{G}_F^2}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu u}d_L)(\bar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_dumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{\tau L})$	\mathbf{C}
CVR_dumunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu u_{\tau L})$	\mathbf{C}
CSR_dumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{\mu}_R u_{\tau L})$	\mathbf{C}
CSL_dumunutau	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CT_dumunutau	$-\frac{4\overset{Q^{\prime}}{\mathcal{Q}_{2}}}{\sqrt{2}}V_{ud}(\bar{u}_{R}\sigma^{\mu\nu}d_{L})(\bar{\mu}_{R}\sigma_{\mu\nu}\nu_{\tau L})$	C

udtaunu

WC name	Operator	Type
CVL_dutaunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\tau}_L\gamma_\mu\nu_{eL})$	C
CVR_dutaunue	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{ au}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_dutaunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{\tau}_R\nu_{eL})$	$^{\mathrm{C}}$
CSL_dutaunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\tau}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_dutaunue	$-rac{4\widetilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu u}d_L)(\bar{ au}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_dutaunumu	$-rac{4 ilde{G}_F}{\sqrt{2}}V_{ud}(ar{u}_L\gamma^\mu d_L)(ar{ au}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_dutaunumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\tau}_L\gamma_\mu\nu_{\mu L})$	$^{\mathrm{C}}$
CSR_dutaunumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{ au}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_dutaunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\tau}_R\nu_{\mu L})$	$^{\mathrm{C}}$
CT_dutaunumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{ au}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
${\tt CVL_dutaunutau}$	$-rac{4ar{G}_F}{\sqrt{2}}V_{ud}(ar{u}_L\gamma^\mu d_L)(ar{ au}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_dutaunutau	$-rac{4ar{G}_F}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{ au}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_dutaunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{\tau}_R u_{\tau L})$	$^{\mathrm{C}}$
CSL_dutaunutau	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\tau}_R\nu_{\tau L})$	$^{\mathrm{C}}$
CT_dutaunutau	$-rac{4 \widetilde{G_F}}{\sqrt{2}} V_{ud} (ar{u}_R \sigma^{\mu u} d_L) (ar{ au}_R \sigma_{\mu u} u_{ au L})$	С

dF=0

WC name	Operator	Type
CG	$\frac{4G_F}{\sqrt{2}}f^{ABC}G^{A\nu}_{\mu}G^{B\rho}_{\nu}G^{C\mu}_{\rho}$	R
CGtilde	$rac{\widetilde{\Delta G_F}}{\sqrt{2}}f^{ABC}\widetilde{G}_{\mu}^{A u}G_{ u}^{B ho}G_{ ho}^{C}{}^{\mu}$	R
C7_uu	$rac{4\overset{\sim}{Q_F}}{\sqrt{2}}rac{e}{16\pi^2}m_uar{u}_L\sigma^{\mu u}u_RF_{\mu u}$	$^{\mathrm{C}}$
C7_cc	$rac{4G_F}{\sqrt{2}}rac{e}{16\pi^2}m_car{c}_L\sigma^{\mu u}c_RF_{\mu u}$	\mathbf{C}
C7_dd	$rac{4G_F}{\sqrt{2}}rac{e}{16\pi^2}m_dar{d}_L\sigma^{\mu u}d_RF_{\mu u}$	\mathbf{C}
C7_ss	$rac{4G_F}{\sqrt{2}}rac{e}{16\pi^2}m_sar{s}_L\sigma^{\mu u}s_RF_{\mu u}$	\mathbf{C}
C7_bb	$rac{4igc G_F}{\sqrt{2}}rac{e}{16\pi^2}m_bar{b}_L\sigma^{\mu u}b_RF_{\mu u}$	\mathbf{C}
C7_ee	$rac{4 \overset{Q}{G_F}}{\sqrt{2}} rac{e}{16 \pi^2} m_e ar{e}_L \sigma^{\mu u} e_R F_{\mu u}$	\mathbf{C}
C7_mumu	$rac{4igvee_F^{Q_F}}{\sqrt{2}}rac{e}{16\pi^2}m_\muar{\mu}_L\sigma^{\mu u}\mu_RF_{\mu u}$	\mathbf{C}
C7_tautau	$rac{4 ilde{G}_F}{\sqrt{2}} rac{e}{16\pi^2} m_ au ar{ au}_L \sigma^{\mu u} au_R F_{\mu u}$	$^{\mathrm{C}}$
C8_uu	$\frac{4G_F}{\sqrt{2}} \frac{g_s}{16\pi^2} m_u \bar{u}_L \sigma^{\mu\nu} T^A u_R G_{\mu\nu}^A$	\mathbf{C}
C8_cc	$\frac{4G_F}{\sqrt{2}} \frac{g_s}{16\pi^2} m_c \bar{c}_L \sigma^{\mu\nu} T^A c_R G_{\mu\nu}^A$	\mathbf{C}
C8_dd	$\frac{4G_F^2}{\sqrt{2}} \frac{g_s}{16\pi^2} m_d \bar{d}_L \sigma^{\mu\nu} T^A d_R G_{\mu\nu}^A$	\mathbf{C}
C8_ss	$rac{4 \overset{\circ}{N_F}}{\sqrt{2}} rac{g_s}{16 \pi^2} m_s ar{s}_L \sigma^{\mu u} T^A s_R G^A_{\mu u}$	$^{\mathrm{C}}$
C8_bb	$rac{4 \check{G}_F}{\sqrt{2}} rac{g_s}{16\pi^2} m_b ar{b}_L \sigma^{\mu u} T^A b_R G^A_{\mu u}$	$^{\mathrm{C}}$
CTRR_eeuu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	$^{\mathrm{C}}$
CTRR_eecc	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{c}_L\sigma_{\mu\nu}c_R)$	$^{\mathrm{C}}$
CTRR_mumuuu	$rac{4\check{G}_F}{\sqrt{2}}(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{u}_L\sigma_{\mu u}u_R)$	$^{\mathrm{C}}$
CTRR_mumucc	$rac{4 \check{G}_F}{\sqrt{2}} (ar{\mu}_L \sigma^{\mu u} \mu_R) (ar{c}_L \sigma_{\mu u} c_R)$	\mathbf{C}
CTRR_tautauuu	$rac{4 \check{G}_F}{\sqrt{2}} (ar{ au}_L \sigma^{\mu u} au_R) (ar{u}_L \sigma_{\mu u} u_R)$	\mathbf{C}
CTRR_tautaucc	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\sigma^{\mu\nu}\tau_R)(\bar{c}_L\sigma_{\mu\nu}c_R)$	\mathbf{C}
CTRR_eedd	$rac{4\overset{C}{G_F}}{\sqrt{2}}(ar{e}_L\sigma^{\mu u}e_R)(ar{d}_L\sigma_{\mu u}d_R)$	$^{\mathrm{C}}$
CTRR_eess	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{s}_L\sigma_{\mu\nu}s_R)$	$^{\mathrm{C}}$
CTRR_eebb	$\frac{4\tilde{Q}_F^2}{\sqrt{2}}(ar{e}_L\sigma^{\mu u}e_R)(ar{b}_L\sigma_{\mu u}b_R)$	$^{\mathrm{C}}$
CTRR_mumudd	$rac{4\check{G}_F}{\sqrt{2}}(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	$^{\mathrm{C}}$
CTRR_mumuss	$rac{4 \check{G_F}}{\sqrt{2}} (ar{\mu}_L \sigma^{\mu u} \mu_R) (ar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
CTRR_mumubb	$rac{4ar{G}_F}{\sqrt{2}}(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{b}_L\sigma_{\mu u}b_R)$	\mathbf{C}
CTRR_tautaudd	$rac{4 \check{G}_F}{\sqrt{2}} (ar{ au}_L \sigma^{\mu u} au_R) (ar{d}_L \sigma_{\mu u} d_R)$	\mathbf{C}
CTRR_tautauss	$rac{4 \check{G}_F}{\sqrt{2}} (ar{ au}_L \sigma^{\mu u} au_R) (ar{s}_L \sigma_{\mu u} as_R)$	\mathbf{C}
CTRR_tautaubb	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\sigma^{\mu\nu}\tau_R)(\bar{s}_L\sigma_{\mu\nu}s_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\sigma^{\mu\nu}\tau_R)(\bar{b}_L\sigma_{\mu\nu}b_R)$	\mathbf{C}
CS1RR_uuuu	$\frac{4G_F}{\overline{E}}(\bar{\eta}_I, \eta_D)(\bar{\eta}_I, \eta_D)$	\mathbf{C}
CS1RR_uucc	$ \frac{\sqrt{2}}{\sqrt{2}} (\bar{u}_L u_R) (\bar{u}_L u_R) \frac{4G_F}{\sqrt{2}} (\bar{u}_L u_R) (\bar{c}_L c_R) \frac{4G_F}{\sqrt{2}} (\bar{u}_L c_R) (\bar{c}_L u_R) \frac{4G_F}{\sqrt{2}} (\bar{c}_L c_R) (\bar{c}_L c_R) \frac{4G_F}{\sqrt{2}} (\bar{u}_L T^A u_R) (\bar{u}_L T^A u_R) $	\mathbf{C}
CS1RR_uccu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u}_L c_R) (\bar{c}_L u_R)$	\mathbf{C}
CS1RR_cccc	$rac{4reve{G_F}}{\sqrt{2}}(ar{c}_Lc_R)(ar{c}_Lc_R)$	\mathbf{C}
CS8RR_uuuu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{u}_L T^A u_R)$	\mathbf{C}
	v -	

WC name	Operator	Type
CS8RR_uucc	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{c}_L T^A c_R)$	C
CS8RR_uccu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A c_R)(\bar{c}_L T^A u_R)$	$^{\mathrm{C}}$
CS8RR_cccc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L T^A c_R)(\bar{c}_L T^A c_R)$	$^{\mathrm{C}}$
CS1RR_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L u_R)(\bar{d}_L d_R)$	$^{\mathrm{C}}$
CS1RR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L u_R)(\bar{s}_L s_R)$	$^{\mathrm{C}}$
CS1RR_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L u_R)(\bar{b}_L b_R)$	$^{\mathrm{C}}$
CS1RR_ccdd	$rac{4G_F}{\sqrt{2}}(ar{c}_L c_R)(ar{d}_L d_R)$	\mathbf{C}
CS1RR_ccss	$\frac{4G_F}{\sqrt{2}}(ar{c}_L c_R)(ar{s}_L s_R)$	\mathbf{C}
CS1RR_ccbb	$rac{4G_F}{\sqrt{2}}(ar{c}_L c_R)(ar{b}_L b_R)$	\mathbf{C}
CS8RR_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{d}_L T^A d_R)$	\mathbf{C}
CS8RR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{s}_L T^A s_R)$	\mathbf{C}
CS8RR_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{b}_L T^A b_R)$	\mathbf{C}
CS8RR_ccdd	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L T^A c_R)(\bar{d}_L T^A d_R)$	\mathbf{C}
CS8RR_ccss	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L T^A c_R)(\bar{s}_L T^A s_R)$	\mathbf{C}
CS8RR_ccbb	$\frac{4G_F}{\sqrt{2}}(ar{c}_L T^A c_R)(ar{b}_L T^A b_R)$	\mathbf{C}
CS1RR_dddd	$rac{4G_F}{\sqrt{2}}(ar{d}_L d_R)(ar{d}_L d_R)$	\mathbf{C}
CS1RR_ddss	$rac{4G_F}{\sqrt{2}}(ar{d}_L d_R)(ar{s}_L s_R)$	\mathbf{C}
CS1RR_ddbb	$rac{4G_F}{\sqrt{2}}(ar{d}_L d_R)(ar{b}_L b_R)$	\mathbf{C}
CS1RR_dssd	$rac{4G_F}{\sqrt{2}}(ar{d}_L s_R)(ar{s}_L d_R)$	\mathbf{C}
CS1RR_dbbd	$rac{4G_F}{\sqrt{2}}(ar{d}_L b_R)(ar{b}_L d_R)$	\mathbf{C}
CS1RR_ssss	$rac{4G_F}{\sqrt{2}}(ar{s}_L s_R)(ar{s}_L s_R)$	\mathbf{C}
CS1RR_ssbb	$rac{4G_F}{\sqrt{2}}(ar{s}_L s_R)(ar{b}_L b_R)$	\mathbf{C}
CS1RR_sbbs	$rac{4G_F}{\sqrt{2}}(ar{s}_L b_R)(ar{b}_L s_R)$	\mathbf{C}
CS1RR_bbbb	$rac{4G_F}{\sqrt{2}}(ar{b}_L b_R)(ar{b}_L b_R)$	\mathbf{C}
CS8RR_dddd	$\frac{4G_F}{\sqrt{2}}(ar{d}_L T^A d_R)(ar{d}_L T^A d_R)$	\mathbf{C}
CS8RR_ddss	$rac{4G_F}{\sqrt{2}}(ar{d}_L T^A d_R)(ar{s}_L T^A s_R)$	\mathbf{C}
CS8RR_ddbb	$rac{4G_F}{\sqrt{2}}(ar{d}_L T^A d_R)(ar{b}_L T^A b_R)$	\mathbf{C}
CS8RR_dssd	$\frac{4G_F}{\sqrt{2}}(ar{d}_L T^A s_R)(ar{s}_L T^A d_R)$	\mathbf{C}
CS8RR_dbbd	$\frac{4G_F}{\sqrt{2}}(ar{d}_L T^A b_R)(ar{b}_L T^A d_R)$	\mathbf{C}
CS8RR_ssss	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R)$	\mathbf{C}
CS8RR_ssbb	$rac{4ar{G}_F}{\sqrt{2}}(ar{s}_L T^A s_R)(ar{b}_L T^A b_R)$	\mathbf{C}
CS8RR_sbbs	$rac{4G_F}{\sqrt{2}}(ar{s}_L T^A b_R)(ar{b}_L T^A s_R)$	\mathbf{C}
CS8RR_bbbb	$rac{4ar{G}_F}{\sqrt{2}}(ar{b}_L T^A b_R)(ar{b}_L T^A b_R)$	\mathbf{C}
CS1RR_uddu	$rac{4ar{G}_F}{\sqrt{2}}(ar{u}_L d_R)(ar{d}_L u_R)$	\mathbf{C}
CS1RR_ussu	$rac{4G_F}{\sqrt{2}}(ar{u}_L s_R)(ar{s}_L u_R)$	\mathbf{C}
CS1RR_ubbu	$rac{4G_F}{\sqrt{2}}(ar{u}_L b_R)(ar{b}_L u_R)$	$^{\mathrm{C}}$
CS1RR_cddc	$rac{4G_F}{\sqrt{2}}(ar{u}_L s_R)(ar{s}_L u_R) \ rac{4G_F}{\sqrt{2}}(ar{u}_L b_R)(ar{b}_L u_R) \ rac{4G_F}{\sqrt{2}}(ar{c}_L d_R)(ar{d}_L c_R)$	$^{\mathrm{C}}$

WC name	Operator	Type
CS1RR_cssc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L s_R)(\bar{s}_L c_R)$	$^{\mathrm{C}}$
CS1RR_cbbc	$rac{4G_F}{\sqrt{2}}(ar{c}_L b_R)(ar{b}_L c_R)$	$^{\mathrm{C}}$
CS8RR_uddu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A d_R)(\bar{d}_L T^A u_R)$	\mathbf{C}
CS8RR_ussu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A s_R)(\bar{s}_L T^A u_R)$	\mathbf{C}
CS8RR_ubbu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A b_R)(\bar{b}_L T^A u_R)$	$^{\mathrm{C}}$
CS8RR_cddc	$rac{4G_F}{\sqrt{2}}(ar{c}_L T^A d_R)(ar{d}_L T^A c_R)$	$^{\mathrm{C}}$
CS8RR_cssc	$rac{4G_F}{\sqrt{2}}(ar{c}_L T^A s_R)(ar{s}_L T^A c_R)$	$^{\mathrm{C}}$
CS8RR_cbbc	$rac{4G_F}{\sqrt{2}}(ar{c}_L T^A b_R)(ar{b}_L T^A c_R)$	$^{\mathrm{C}}$
CSRL_eebb	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{b}_R b_L)$	$^{\mathrm{C}}$
CSRL_eecc	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{c}_R c_L)$	$^{\mathrm{C}}$
CSRL_eedd	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{d}_R d_L)$	$^{\mathrm{C}}$
CSRL_eess	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{s}_R s_L)$	$^{\mathrm{C}}$
CSRL_eeuu	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{u}_R u_L)$	$^{\mathrm{C}}$
CSRL_mumubb	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{b}_Rb_L)$	$^{\mathrm{C}}$
CSRL_mumucc	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{c}_Rc_L)$	$^{\mathrm{C}}$
CSRL_mumudd	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
CSRL_mumuss	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRL_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{u}_Ru_L)$	$^{\mathrm{C}}$
CSRL_tautaubb	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{b}_Rb_L)$	$^{\mathrm{C}}$
CSRL_tautaucc	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{c}_Rc_L)$	$^{\mathrm{C}}$
CSRL_tautaudd	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
CSRL_tautauss	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
CSRL_tautauuu	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{u}_Ru_L)$	$^{\mathrm{C}}$
CSRR_eebb	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{b}_L b_R)$	$^{\mathrm{C}}$
CSRR_eecc	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{c}_L c_R)$	$^{\mathrm{C}}$
CSRR_eedd	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{d}_L d_R)$	$^{\mathrm{C}}$
CSRR_eeee	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{e}_L e_R)$	$^{\mathrm{C}}$
CSRR_eemumu	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{\mu}_L \mu_R)$	$^{\mathrm{C}}$
CSRR_eess	$rac{4\dot{G}_F}{\sqrt{2}}(ar{e}_L e_R)(ar{s}_L s_R)$	$^{\mathrm{C}}$
CSRR_eetautau	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{ au}_L au_R)$	$^{\mathrm{C}}$
CSRR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{u}_L u_R)$	$^{\mathrm{C}}$
CSRR_emumue	$rac{4G_F}{\sqrt{2}}(ar{e}_L\mu_R)(ar{\mu}_Le_R)$	$^{\mathrm{C}}$
CSRR_etautaue	$rac{4ar{G}_F}{\sqrt{2}}(ar{e}_L au_R)(ar{ au}_Le_R)$	$^{\mathrm{C}}$
CSRR_mumubb	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{b}_Lb_R)$	$^{\mathrm{C}}$
CSRR_mumucc	$\frac{4\breve{G}_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{c}_Lc_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRR_mumudd	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRR_mumumumu	$rac{4ar{G_F}}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{\mu}_L\mu_R)$	$^{\mathrm{C}}$

WC name	Operator	Type
CSRR_mumuss	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{s}_Ls_R)$	С
CSRR_mumutautau	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{\tau}_L\tau_R)$	\mathbf{C}
CSRR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{u}_Lu_R)$	$^{\mathrm{C}}$
CSRR_mutautaumu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L \tau_R)(\bar{\tau}_L \mu_R)$	\mathbf{C}
CSRR_tautaubb	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CSRR_tautaucc	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L \tau_R)(\bar{c}_L c_R)$	$^{\mathrm{C}}$
CSRR_tautaudd	$rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRR_tautauss	$\frac{4G_F}{\sqrt{2}}(\bar{ au}_L au_R)(\bar{s}_Ls_R)$	\mathbf{C}
CSRR_tautautautau	$-rac{4G_F}{\sqrt{2}}(ar{ au}_L au_R)(ar{ au}_L au_R)$	\mathbf{C}
CSRR_tautauuu	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\tau_R)(\bar{u}_Lu_R)$	\mathbf{C}
CV1LL_ccbb	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{b}_L\gamma_\mu b_L)$	R
CV1LL_ccdd	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu c_L)(ar{d}_L\gamma_\mu d_L)$	R
CV1LL_ccss	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{s}_L\gamma_\mu s_L)$	R
CV1LL_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{b}_L\gamma_\mu b_L)$	R
CV1LL_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{d}_L\gamma_\mu d_L)$	R
CV1LL_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{s}_L\gamma_\mu s_L)$	R
CV1LR_bbbb	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{b}_R\gamma_\mu b_R)$	R
CV1LR_bbcc	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{c}_R\gamma_\mu c_R)$	R
CV1LR_bbdd	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_bbss	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{s}_R\gamma_\mu s_R)$	R
CV1LR_bbuu	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{u}_R\gamma_\mu u_R)$	R
CV1LR_cbbc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu b_L)(\bar{b}_R\gamma_\mu c_R)$	$^{\mathrm{C}}$
CV1LR_ccbb	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu c_L)(ar{b}_R\gamma_\mu b_R)$	R
CV1LR_cccc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{c}_R\gamma_\mu c_R)$	R
CV1LR_ccdd	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{d}_R\gamma_\mu d_R)$	R
CV1LR_ccss	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu c_L)(ar{s}_R\gamma_\mu s_R)$	R
CV1LR_ccuu	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{u}_R\gamma_\mu u_R)$	R
CV1LR_cddc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu d_L)(\bar{d}_R\gamma_\mu c_R)$	$^{\mathrm{C}}$
CV1LR_cssc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu s_L)(\bar{s}_R\gamma_\mu c_R)$	$^{\mathrm{C}}$
CV1LR_dbbd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu b_L)(ar{b}_R\gamma_\mu d_R)$	C
CV1LR_ddbb	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{b}_R\gamma_\mu b_R)$	R
CV1LR_ddcc	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{c}_R\gamma_\mu c_R)$	R
CV1LR_dddd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{d}_R\gamma_\mu d_R)$	R
CV1LR_ddss	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{s}_R\gamma_\mu s_R)$	R
CV1LR_dduu	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{u}_R\gamma_\mu u_R)$	R
CV1LR_dssd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CV1LR_sbbs	$\begin{array}{l} \frac{\sqrt{2}}{\sqrt{2}} (a_L \gamma^\mu d_L) (b_R \gamma_\mu d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu d_L) (\bar{b}_R \gamma_\mu b_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu d_L) (\bar{c}_R \gamma_\mu c_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu d_L) (\bar{d}_R \gamma_\mu d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu d_L) (\bar{s}_R \gamma_\mu s_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu d_L) (\bar{u}_R \gamma_\mu u_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^\mu s_L) (\bar{s}_R \gamma_\mu d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{s}_L \gamma^\mu b_L) (\bar{b}_R \gamma_\mu s_R) \end{array}$	$^{\mathrm{C}}$

WC name	Operator	Type
CV1LR_ssbb	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{b}_R\gamma_\mu b_R)$	\mathbf{R}
CV1LR_sscc	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{c}_R\gamma_\mu c_R)$	R
CV1LR_ssdd	$\frac{4\check{G}_F^F}{\sqrt{2}}(\bar{s}_L\gamma^\mu s_L)(\bar{d}_R\gamma_\mu d_R)$	R
CV1LR_ssss	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^\mu s_L)(\bar{s}_R\gamma_\mu s_R)$	R
CV1LR_ssuu	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^\mu s_L)(\bar{u}_R\gamma_\mu u_R)$	R
CV1LR_ubbu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}b_L)(\bar{b}_R\gamma_{\mu}u_R)$	$^{\mathrm{C}}$
CV1LR_uccu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu c_L)(\bar{c}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CV1LR_uddu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu d_L)(\bar{d}_R\gamma_\mu u_R)$	\mathbf{C}
CV1LR_ussu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}s_L)(\bar{s}_R\gamma_{\mu}u_R)$	$^{\mathrm{C}}$
CV1LR_uubb	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{b}_R\gamma_\mu b_R)$	R
CV1LR_uucc	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{c}_R\gamma_\mu c_R)$	R
CV1LR_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{d}_R\gamma_\mu d_R)$	R
CV1LR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{s}_R\gamma_\mu s_R)$	R
CV1LR_uuuu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{u}_R\gamma_\mu u_R)$	R
CV1RR_ccbb	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{c}_R\gamma^\mu c_R)(\bar{b}_R\gamma_\mu b_R)$	R
CV1RR_ccdd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{c}_R\gamma^\mu c_R)(\bar{d}_R\gamma_\mu d_R)$	R
CV1RR_ccss	$\frac{4G_F}{\sqrt{2}}(\bar{c}_R\gamma^\mu c_R)(\bar{s}_R\gamma_\mu s_R)$	R
CV1RR_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_R\gamma^\mu u_R)(\bar{b}_R\gamma_\mu b_R)$	R
CV1RR_uudd	$rac{4ar{G}_F}{\sqrt{2}}(ar{u}_R\gamma^\mu u_R)(ar{d}_R\gamma_\mu d_R)$	R
CV1RR_uuss	$rac{4G_F}{\sqrt{2}}(ar{u}_R\gamma^\mu u_R)(ar{s}_R\gamma_\mu s_R)$	R
CV8LL_ccbb	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu T^Ac_L)(\bar{b}_L\gamma_\mu T^Ab_L)$	R
CV8LL_ccdd	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu T^A c_L)(\bar{d}_L\gamma_\mu T^A d_L)$	R
CV8LL_ccss	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu T^Ac_L)(\bar{s}_L\gamma_\mu T^As_L)$	R
CV8LL_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{b}_L\gamma_{\mu}T^Ab_L)$	R
CV8LL_uudd	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_L\gamma_{\mu}T^Ad_L)$	R
CV8LL_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{s}_L\gamma_{\mu}T^As_L)$	R
CV8LR_bbbb	$\frac{4\widetilde{G}_F}{\sqrt{2}}(\bar{b}_L\gamma^\mu T^A b_L)(\bar{b}_R\gamma_\mu T^A b_R)$	R
CV8LR_bbcc	$\frac{4G_F}{\sqrt{2}}(\bar{b}_L\gamma^\mu T^Ab_L)(\bar{c}_R\gamma_\mu T^Ac_R)$	R
CV8LR_bbdd	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{b}_L\gamma^{\mu}T^Ab_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	R
CV8LR_bbss	$rac{4ackslash G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu T^A b_L)(ar{s}_R\gamma_\mu T^A s_R)$	R
CV8LR_bbuu	$\frac{4G_F}{\sqrt{2}}(\bar{b}_L\gamma^\mu T^A b_L)(\bar{u}_R\gamma_\mu T^A u_R)$	R
CV8LR_cbbc	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu T^A b_L)(ar{b}_R\gamma_\mu T^A c_R)$	\mathbf{C}
CV8LR_ccbb	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu T^A c_L)(ar{b}_R\gamma_\mu T^A b_R)$	R
CV8LR_cccc	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu T^A c_L)(\bar{c}_R\gamma_\mu T^A c_R)$	${ m R}$
CV8LR_ccdd	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu T^A c_L)(\bar{d}_R\gamma_\mu T^A d_R)$	R
CV8LR_ccss	$\frac{\frac{\sqrt{2}}{\sqrt{2}}(b_{L}\gamma^{\mu}T^{A}b_{L})(\bar{s}_{R}\gamma_{\mu}T^{A}u_{R})}{\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}b_{L})(\bar{b}_{R}\gamma_{\mu}T^{A}c_{R})}{\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{b}_{R}\gamma_{\mu}T^{A}c_{R})}$ $\frac{\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{b}_{R}\gamma_{\mu}T^{A}c_{R})}{\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{d}_{R}\gamma_{\mu}T^{A}c_{R})}$ $\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{d}_{R}\gamma_{\mu}T^{A}d_{R})}{\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{s}_{R}\gamma_{\mu}T^{A}s_{R})}$ $\frac{4G_{F}}{\sqrt{2}}(\bar{c}_{L}\gamma^{\mu}T^{A}c_{L})(\bar{u}_{R}\gamma_{\mu}T^{A}u_{R})}$	R
CV8LR_ccuu	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{c}_L\gamma^{\mu}T^Ac_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	R

WC name	Operator	Type
CV8LR_cddc	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu T^A d_L)(ar{d}_R\gamma_\mu T^A c_R)$	С
CV8LR_cssc	$\frac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu T^A s_L)(ar{s}_R\gamma_\mu T^A c_R)$	\mathbf{C}
CV8LR_dbbd	$\frac{4\overset{.}{G_F}}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ab_L)(\bar{b}_R\gamma_{\mu}T^Ad_R)$	\mathbf{C}
CV8LR_ddbb	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{b}_R\gamma_{\mu}T^Ab_R)$	\mathbf{R}
CV8LR_ddcc	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{c}_R\gamma_{\mu}T^Ac_R)$	\mathbf{R}
CV8LR_dddd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	\mathbf{R}
CV8LR_ddss	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	\mathbf{R}
CV8LR_dduu	$\frac{4\overset{.}{G_F}}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	${ m R}$
CV8LR_dssd	$\frac{4\overset{.}{G_F}}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^Ad_R)$	\mathbf{C}
CV8LR_sbbs	$\frac{4\overset{.}{G_F}}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^Ab_L)(\bar{b}_R\gamma_{\mu}T^As_R)$	\mathbf{C}
CV8LR_ssbb	$\frac{4\overleftarrow{G_F}}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{b}_R\gamma_{\mu}T^Ab_R)$	R
CV8LR_sscc	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{c}_R\gamma_{\mu}T^Ac_R)$	\mathbf{R}
CV8LR_ssdd	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^\mu T^A s_L)(\bar{d}_R\gamma_\mu T^A d_R)$	\mathbf{R}
CV8LR_ssss	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	\mathbf{R}
CV8LR_ssuu	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	\mathbf{R}
CV8LR_ubbu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Ab_L)(\bar{b}_R\gamma_{\mu}T^Au_R)$	\mathbf{C}
CV8LR_uccu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu T^A c_L)(\bar{c}_R\gamma_\mu T^A u_R)$	\mathbf{C}
CV8LR_uddu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Ad_L)(\bar{d}_R\gamma_{\mu}T^Au_R)$	\mathbf{C}
CV8LR_ussu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^Au_R)$	$^{\mathrm{C}}$
CV8LR_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{b}_R\gamma_{\mu}T^Ab_R)$	\mathbf{R}
CV8LR_uucc	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{c}_R\gamma_{\mu}T^Ac_R)$	\mathbf{R}
CV8LR_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	\mathbf{R}
CV8LR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	\mathbf{R}
CV8LR_uuuu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	\mathbf{R}
CV8RR_ccbb	$rac{4G_F}{\sqrt{2}}(ar{c}_R\gamma^\mu T^A c_R)(b_R\gamma_\mu T^A b_R)$	\mathbf{R}
CV8RR_ccdd	$\frac{4G_F}{\sqrt{2}}(\bar{c}_R\gamma^\mu T^A c_R)(\bar{d}_R\gamma_\mu T^A d_R)$	\mathbf{R}
CV8RR_ccss	$\frac{4G_F}{\sqrt{2}}(\bar{c}_R\gamma^{\mu}T^Ac_R)(\bar{s}_R\gamma_{\mu}T^As_R)$	\mathbf{R}
CV8RR_uubb	$\frac{4G_F}{\sqrt{2}}(\bar{u}_R\gamma^{\mu}T^Au_R)(\bar{b}_R\gamma_{\mu}T^Ab_R)$	\mathbf{R}
CV8RR_uudd	$\frac{4G_F}{\sqrt{2}}(ar{u}_R\gamma^\mu T^A u_R)(ar{d}_R\gamma_\mu T^A d_R)$	\mathbf{R}
CV8RR_uuss	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}_R\gamma^{\mu}T^Au_R)(\bar{s}_R\gamma_{\mu}T^As_R)$	\mathbf{R}
CVLL_bbbb	$4G_F(\bar{b}, \mu b)(\bar{b}, \mu b)$	\mathbf{R}
CVLL_cccc	$rac{4 G_F}{\sqrt{2}} (ar{c}_L \gamma^\mu c_L) (ar{c}_L \gamma_\mu c_L)$	\mathbf{R}
CVLL_dbbd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu b_L)(ar{b}_L\gamma_\mu d_L)$	\mathbf{R}
CVLL_ddbb	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{b}_L\gamma_\mu b_L)$	\mathbf{R}
CVLL_dddd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{d}_L\gamma_\mu d_L)$	R
CVLL_ddss	$\frac{\sqrt{2}}{\sqrt{2}}(b_L\gamma^{\mu}b_L)(b_L\gamma_{\mu}b_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^{\mu}c_L)(\bar{c}_L\gamma_{\mu}c_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}b_L)(\bar{b}_L\gamma_{\mu}d_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{b}_L\gamma_{\mu}b_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{d}_L\gamma_{\mu}d_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{s}_L\gamma_{\mu}s_L)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}s_L)(\bar{s}_L\gamma_{\mu}d_L)$	${ m R}$
CVLL_dssd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu s_L)(ar{s}_L\gamma_\mu d_L)$	R
	•	

WC name	Operator	Type
CVLL_eebb	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{b}_L\gamma_\mu b_L)$	R
CVLL_eecc	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{c}_L\gamma_{\mu}c_L)$	R
CVLL_eedd	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{d}_L\gamma_\mu d_L)$	R
CVLL_eeee	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{e}_L\gamma_\mu e_L)$	R
CVLL_eemumu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{\mu}_L\gamma_{\mu}\mu_L)$	R
CVLL_eess	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{s}_L\gamma_{\mu}s_L)$	R
CVLL_eetautau	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{\tau}_L\gamma_{\mu}\tau_L)$	R
CVLL_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{u}_L\gamma_{\mu}u_L)$	R
CVLL_mumubb	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{b}_L\gamma_\mu b_L)$	R
CVLL_mumucc	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{c}_L\gamma_\mu c_L)$	R
CVLL_mumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{d}_L\gamma_\mu d_L)$	R
CVLL_mumumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_mumuss	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{s}_L\gamma_\mu s_L)$	R
CVLL_mumutautau	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\tau}_L\gamma_\mu\tau_L)$	R
CVLL_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{u}_L\gamma_\mu u_L)$	R
CVLL_sbbs	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^\mu b_L)(\bar{b}_L\gamma_\mu s_L)$	R
CVLL_ssbb	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{b}_L\gamma_\mu b_L)$	R
CVLL_ssss	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}s_L)(\bar{s}_L\gamma_{\mu}s_L)$	R
CVLL_tautaubb	$rac{4G_F}{\sqrt{2}}(ar{ au}_L\gamma^\mu au_L)(ar{b}_L\gamma_\mu b_L)$	R
CVLL_tautaucc	$\frac{4G_F}{\sqrt{2}}(\bar{ au}_L\gamma^\mu au_L)(\bar{c}_L\gamma_\mu c_L)$	R
CVLL_tautaudd	$rac{4G_F}{\sqrt{2}}(ar{ au}_L\gamma^\mu au_L)(ar{d}_L\gamma_\mu d_L)$	R
CVLL_tautauss	$rac{4G_F}{\sqrt{2}}(ar{ au}_L\gamma^\mu au_L)(ar{s}_L\gamma_\mu s_L)$	R
CVLL_tautautautau	$rac{4G_F}{\sqrt{2}}(ar{ au}_L\gamma^\mu au_L)(ar{ au}_L\gamma_\mu au_L)$	R
CVLL_tautauuu	$\frac{4G_F}{\sqrt{2}}(\bar{ au}_L\gamma^\mu au_L)(\bar{u}_L\gamma_\mu u_L)$	R
CVLL_uccu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu c_L)(\bar{c}_L\gamma_\mu u_L)$	R
CVLL_uucc	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{c}_L\gamma_\mu c_L)$	${ m R}$
CVLL_uuuu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{u}_L\gamma_\mu u_L)$	R
CVLR_bbee	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{e}_R\gamma_\mu e_R)$	R
CVLR_bbmumu	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_bbtautau	$rac{4G_F}{\sqrt{2}}(ar{b}_L\gamma^\mu b_L)(ar{ au}_R\gamma_\mu au_R)$	R
CVLR_ccee	$rac{4G_F}{\sqrt{2}}(ar{c}_L\gamma^\mu c_L)(ar{e}_R\gamma_\mu e_R)$	R
CVLR_ccmumu	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_cctautau	$\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^\mu c_L)(\bar{\tau}_R\gamma_\mu \tau_R)$	R
CVLR_ddee	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{e}_R\gamma_\mu e_R)$	R
CVLR_ddmumu	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_ddtautau	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{ au}_R\gamma_\mu au_R)$	R
CVLR_eebb	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{c}_L\gamma^{\mu}c_L)(\bar{e}_R\gamma_{\mu}e_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^{\mu}c_L)(\bar{\mu}_R\gamma_{\mu}\mu_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{c}_L\gamma^{\mu}c_L)(\bar{\tau}_R\gamma_{\mu}\tau_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{e}_R\gamma_{\mu}e_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{\mu}_R\gamma_{\mu}\mu_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{\tau}_R\gamma_{\mu}\mu_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}d_L)(\bar{\tau}_R\gamma_{\mu}\mu_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{b}_R\gamma_{\mu}b_R)$	R

WC name	Operator	Type
CVLR_eecc	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{c}_R\gamma_\mu c_R)$	R
CVLR_eedd	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{d}_R\gamma_{\mu}d_R)$	R
CVLR_eeee	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{e}_R\gamma_{\mu}e_R)$	R
CVLR_eemumu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{\mu}_R\gamma_{\mu}\mu_R)$	R
CVLR_eess	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{s}_R\gamma_\mu s_R)$	R
CVLR_eetautau	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{ au}_R\gamma_\mu au_R)$	R
CVLR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{u}_R\gamma_{\mu}u_R)$	R
CVLR_emumue	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^\mu\mu_L)(\bar{\mu}_R\gamma_\mu e_R)$	$^{\mathrm{C}}$
CVLR_etautaue	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu au_L)(ar{ au}_R\gamma_\mu e_R)$	\mathbf{C}
CVLR_mumubb	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{b}_R\gamma_\mu b_R)$	R
CVLR_mumucc	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{c}_R\gamma_\mu c_R)$	R
CVLR_mumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{d}_R\gamma_\mu d_R)$	R
CVLR_mumuee	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{e}_R\gamma_\mu e_R)$	R
CVLR_mumumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_mumuss	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{s}_R\gamma_\mu s_R)$	R
CVLR_mumutautau	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\tau}_R\gamma_\mu\tau_R)$	R
CVLR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{u}_R\gamma_\mu u_R)$	R
CVLR_mutautaumu	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\gamma^\mu au_L)(ar{ au}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_ssee	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{e}_R\gamma_\mu e_R)$	R
CVLR_ssmumu	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}s_L)(\bar{\mu}_R\gamma_{\mu}\mu_R)$	R
CVLR_sstautau	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^\mu s_L)(\bar{\tau}_R\gamma_\mu \tau_R)$	R
CVLR_tautaubb	$\frac{4G_F}{\sqrt{2}}(\bar{ au}_L\gamma^\mu au_L)(\bar{b}_R\gamma_\mu b_R)$	R
CVLR_tautaucc	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{c}_R\gamma_\mu c_R)$	R
CVLR_tautaudd	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{d}_R\gamma_\mu d_R)$	R
CVLR_tautauee	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{e}_R\gamma_\mu e_R)$	R
CVLR_tautaumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_tautauss	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{s}_R\gamma_\mu s_R)$	R
CVLR_tautautautau	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_L\gamma^\mu\tau_L)(\bar{\tau}_R\gamma_\mu\tau_R)$	R
CVLR_tautauuu	$\frac{4G_F}{\sqrt{2}}(\bar{ au}_L\gamma^\mu au_L)(\bar{u}_R\gamma_\mu u_R)$	R
CVLR_uuee	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{e}_R\gamma_\mu e_R)$	R
CVLR_uumumu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_uutautau	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{\tau}_R\gamma_\mu \tau_R)$	R
CVRR_bbbb	$\frac{4G_F}{\sqrt{2}}(\bar{b}_R\gamma^\mu b_R)(\bar{b}_R\gamma_\mu b_R)$	R
CVRR_cccc	$\frac{4\dot{G}_F}{\sqrt{2}}(\bar{c}_R\gamma^\mu c_R)(\bar{c}_R\gamma_\mu c_R)$	R
CVRR_dbbd	$\frac{4\dot{G}_F}{\sqrt{2}}(\bar{d}_R\gamma^\mu b_R)(\bar{b}_R\gamma_\mu d_R)$	R
CVRR_ddbb	$\begin{array}{c} \frac{\sqrt{2}}{\sqrt{2}} (\bar{u}_L \gamma^\mu u_L) (\bar{c}_R \gamma_\mu \bar{c}_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{u}_L \gamma^\mu u_L) (\bar{\mu}_R \gamma_\mu \mu_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{u}_L \gamma^\mu u_L) (\bar{\tau}_R \gamma_\mu \tau_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{b}_R \gamma^\mu b_R) (\bar{b}_R \gamma_\mu b_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{c}_R \gamma^\mu c_R) (\bar{c}_R \gamma_\mu c_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_R \gamma^\mu b_R) (\bar{b}_R \gamma_\mu d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_R \gamma^\mu d_R) (\bar{b}_R \gamma_\mu b_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_R \gamma^\mu d_R) (\bar{d}_R \gamma_\mu d_R) \end{array}$	${ m R}$
CVRR_dddd	$\frac{4\dot{G}_F}{G}(\bar{d}_R\gamma^\mu d_R)(\bar{d}_R\gamma_\mu d_R)$	R

WC name	Operator	Type
CVRR_ddss	$\frac{4G_F}{\sqrt{2}}(\bar{d}_R\gamma^\mu d_R)(\bar{s}_R\gamma_\mu s_R)$	${ m R}$
CVRR_dssd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_R\gamma^\mu s_R)(\bar{s}_R\gamma_\mu d_R)$	R
CVRR_eebb	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{b}_R\gamma_\mu b_R)$	R
CVRR_eecc	$rac{4G_F}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{c}_R\gamma_\mu c_R)$	\mathbf{R}
CVRR_eedd	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{d}_R\gamma_\mu d_R)$	\mathbf{R}
CVRR_eeee	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{e}_R\gamma_\mu e_R)$	\mathbf{R}
CVRR_eemumu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{\mu}_R\gamma_\mu\mu_R)$	\mathbf{R}
CVRR_eess	$rac{4G_F}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{s}_R\gamma_\mu s_R)$	R
CVRR_eetautau	$rac{4G_F}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{ au}_R\gamma_\mu au_R)$	R
CVRR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{R}
CVRR_mumubb	$rac{4G_F}{\sqrt{2}}(ar{\mu}_R\gamma^\mu\mu_R)(ar{b}_R\gamma_\mu b_R)$	\mathbf{R}
CVRR_mumucc	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{c}_R\gamma_\mu c_R)$	\mathbf{R}
CVRR_mumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{d}_R\gamma_\mu d_R)$	R
CVRR_mumumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{\mu}_R\gamma_\mu\mu_R)$	\mathbf{R}
CVRR_mumuss	$rac{4G_F}{\sqrt{2}}(ar{\mu}_R\gamma^\mu\mu_R)(ar{s}_R\gamma_\mu s_R)$	\mathbf{R}
CVRR_mumutautau	$rac{4G_F}{\sqrt{2}}(ar{\mu}_R\gamma^\mu\mu_R)(ar{ au}_R\gamma_\mu au_R)$	\mathbf{R}
CVRR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{R}
CVRR_sbbs	$rac{4G_F}{\sqrt{2}}(ar{s}_R\gamma^\mu b_R)(ar{b}_R\gamma_\mu s_R)$	\mathbf{R}
CVRR_ssbb	$rac{4G_F}{\sqrt{2}}(ar{s}_R\gamma^\mu s_R)(ar{b}_R\gamma_\mu b_R)$	\mathbf{R}
CVRR_ssss	$rac{4G_F}{\sqrt{2}}(ar{s}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu s_R)$	\mathbf{R}
CVRR_tautaubb	$rac{4G_F}{\sqrt{2}}(ar{ au}_R\gamma^\mu au_R)(ar{b}_R\gamma_\mu b_R)$	\mathbf{R}
CVRR_tautaucc	$rac{4G_F}{\sqrt{2}}(ar{ au}_R\gamma^\mu au_R)(ar{c}_R\gamma_\mu c_R)$	\mathbf{R}
CVRR_tautaudd	$rac{4G_F}{\sqrt{2}}(ar{ au}_R\gamma^\mu au_R)(ar{d}_R\gamma_\mu d_R)$	\mathbf{R}
CVRR_tautauss	$rac{4G_F}{\sqrt{2}}(ar{ au}_R\gamma^\mu au_R)(ar{s}_R\gamma_\mu s_R)$	R
CVRR_tautautautau	$4\frac{4G_F}{\sqrt{2}}(ar{ au}_R\gamma^\mu au_R)(ar{ au}_R\gamma_\mu au_R)$	\mathbf{R}
CVRR_tautauuu	$\frac{4G_F}{\sqrt{2}}(\bar{\tau}_R\gamma^\mu\tau_R)(\bar{u}_R\gamma_\mu u_R)$	R
CVRR_uccu	$\frac{4\overleftarrow{G_F}}{\sqrt{2}}(\bar{u}_R\gamma^\mu c_R)(\bar{c}_R\gamma_\mu u_R)$	R
CVRR_uucc	$\frac{4\overleftarrow{G_F}}{\sqrt{2}}(\bar{u}_R\gamma^\mu u_R)(\bar{c}_R\gamma_\mu c_R)$	R
CVRR_uuuu	$\frac{4\overleftarrow{G}_F}{\sqrt{2}}(\bar{u}_R\gamma^\mu u_R)(\bar{u}_R\gamma_\mu u_R)$	R

${\tt mue}$

WC name	Operator	Type
Cgamma_mue	$\bar{e}_L \sigma^{\mu u} \mu_R F_{\mu u}$	C
Cgamma_emu	$ar{\mu}_L \sigma^{\mu u} e_R F_{\mu u}$	\mathbf{C}
CVLL_eemue	$(ar{e}_L\gamma^\mu e_L)(\dot{ar{e}}_L\gamma_\mu\mu_L)$	\mathbf{C}
CVLL_muemumu	$(ar{e}_L\gamma^\mu\mu_L)(ar{\mu}_L\gamma_\mu\mu_L)$	\mathbf{C}

WC name	Operator	Type
CVLL muetautau	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\tau}_L \gamma_\mu \tau_L)$	С
_ CVLL_mueuu	$(ar{e}_L\gamma^\mu\mu_L)(ar{u}_L\gamma_\mu u_L)$	$^{\mathrm{C}}$
CVLL_muecc	$(ar{e}_L\gamma^\mu\mu_L)(ar{c}_L\gamma_\mu c_L)$	$^{\mathrm{C}}$
_ CVLL_muedd	$(ar{e}_L\gamma^\mu\mu_L)(ar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLL_muess	$(ar{e}_L\gamma^\mu\mu_L)(ar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
_ CVLL_muebb	$(ar{e}_L\gamma^\mu\mu_L)(ar{b}_L\gamma_\mu b_L)$	$^{\mathrm{C}}$
CVRR_eemue	$(\bar{e}_R\gamma^\mu e_R)(\bar{e}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVRR_muemumu	$(\bar{e}_R\gamma^\mu\mu_R)(\bar{\mu}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
- CVRR_muetautau	$(ar{e}_R\gamma^\mu\mu_R)(ar{ au}_R\gamma_\mu au_R)$	$^{\mathrm{C}}$
CVRR_mueuu	$(ar{e}_R\gamma^\mu\mu_R)(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CVRR_muecc	$(ar{e}_R\gamma^\mu\mu_R)(ar{c}_R\gamma_\mu c_R)$	$^{\mathrm{C}}$
- CVRR_muedd	$(ar{e}_R\gamma^\mu\mu_R)(ar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CVRR_muess	$(ar{e}_R\gamma^\mu\mu_R)(ar{s}_R\gamma_\mu s_R)$	$^{ m C}$
CVRR_muebb	$(ar{e}_R\gamma^\mu\mu_R)(ar{b}_R\gamma_\mu b_R)$	$^{\mathrm{C}}$
CVLR_eemue	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_R \gamma_\mu \mu_R)$	$\dot{ ext{C}}$
CVLR_mueee	$(ar{e}_L\gamma^\mu\mu_L)(ar{e}_R\gamma_\mu e_R)$	$\dot{ ext{C}}$
CVLR_muemumu	$(ar{e}_L\gamma^\mu\mu_L)(ar{\mu}_R\gamma_\mu\mu_R)$	$^{ m C}$
CVLR_muetautau	$(ar{e}_L\gamma^\mu\mu_L)(ar{ au}_R\gamma_\mu au_R)$	$^{ m C}$
_ CVLR_tauemutau	$(ar{e}_L\gamma^\mu au_L)(ar{ au}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_mumumue	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
_ CVLR_taumuetau	$(ar{\mu}_L\gamma^\mu au_L)(ar{ au}_R\gamma_\mu e_R)$	$^{\mathrm{C}}$
_ CVLR_tautaumue	$(ar{ au}_L\gamma^\mu au_L)(ar{e}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_mueuu	$(ar{e}_L\gamma^\mu\mu_L)(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CVLR_muecc	$(ar{e}_L\gamma^\mu\mu_L)(ar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CVLR_muedd	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu d_R)$	\mathbf{C}
CVLR_muess	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{s}_R \gamma_\mu s_R)$	\mathbf{C}
CVLR_muebb	$(ar{e}_L \gamma^\mu \mu_L) (ar{b}_R \gamma_\mu b_R)$	\mathbf{C}
CVLR_uumue	$(ar{u}_L\gamma^\mu u_L)(ar{e}_R\gamma_\mu\mu_R)$	\mathbf{C}
CVLR_ccmue	$(ar{c}_L \gamma^\mu c_L) (ar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
CVLR_ddmue	$(ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_ssmue	$(\bar{s}_L\gamma^\mu s_L)(\bar{e}_R\gamma_\mu\mu_R)$	\mathbf{C}
CVLR_bbmue	$(ar{b}_L \gamma^\mu b_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CSRL_mueuu	$(ar{e}_L\mu_R)(ar{u}_Ru_L)$	$^{\mathrm{C}}$
CSRL_muecc	$(\bar{e}_L \mu_R)(\bar{c}_R c_L)$	\mathbf{C}
CSRL_emuuu	$(\bar{\mu}_L e_R)(\bar{u}_R u_L)$	\mathbf{C}
CSRL_emucc	$(ar{\mu}_L e_R)(ar{c}_R c_L)$	\mathbf{C}
CSRL_muedd	$(ar{e}_L\mu_R)(ar{d}_Rd_L)$	\mathbf{C}
CSRL_muess	$(\bar{e}_L \mu_R)(\bar{s}_R s_L)$	\mathbf{C}
CSRL_muebb	$(ar{e}_L\mu_R)(ar{b}_Rb_L)$	\mathbf{C}
- CSRL_emudd	$(ar{\mu}_L e_R)(ar{d}_R d_L)$	\mathbf{C}
CSRL_emuss	$(ar{\mu}_L e_R)(ar{s}_R s_L)$	$^{ m C}$
CSRL_emubb	$(ar{\mu}_L e_R)(ar{b}_R b_L)$	$^{\mathrm{C}}$
CSRR_eemue	$(ar{e}_L e_R)(ar{e}_L \mu_R)$	$^{ m C}$
	(D 10) (DF-10)	~

WC name	Operator	Type
CSRR_eeemu	$(\bar{e}_L e_R)(\bar{\mu}_L e_R)$	C
CSRR_muemumu	$(\bar{e}_L \mu_R)(\bar{\mu}_L \mu_R)$	\mathbf{C}
CSRR_muetautau	$(ar{e}_L\mu_R)(ar{ au}_L au_R)$	\mathbf{C}
CSRR_tauemutau	$(ar{e}_L au_R)(ar{ au}_L\mu_R)$	\mathbf{C}
CSRR_emumumu	$(ar{\mu}_L e_R)(ar{\mu}_L \mu_R)$	С
CSRR_emutautau	$(ar{\mu}_L e_R)(ar{ au}_L au_R)$	С
CSRR_taumuetau	$(ar{\mu}_L au_R)(ar{ au}_Le_R)$	С
CSRR_mueuu	$(ar{e}_L\mu_R)(ar{u}_Lu_R)$	C
CSRR_muecc	$(ar{e}_L\mu_R)(ar{c}_Lc_R)$	C
CSRR_emuuu	$(ar{\mu}_L e_R)(ar{u}_L u_R)$	\mathbf{C}
CSRR_emucc	$(ar{\mu}_L e_R)(ar{c}_L c_R)$	\mathbf{C}
CTRR_mueuu	$(\bar{e}_L \sigma^{\mu\nu} \mu_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	\mathbf{C}
CTRR_muecc	$(\bar{e}_L \sigma^{\mu\nu} \mu_R) (\bar{c}_L \sigma_{\mu\nu} c_R)$	С
CTRR_emuuu	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	С
CTRR_emucc	$(\bar{\mu}_L \sigma^{\mu\nu} e_{\underline{R}})(\bar{c}_L \sigma_{\mu\nu} c_R)$	С
CSRR_muedd	$(ar{e}_L\mu_R)(d_Ld_R)$	С
CSRR_muess	$(ar{e}_L\mu_R)(ar{s}_Ls_R)$	С
CSRR_muebb	$(ar{e}_L\mu_R)(ar{b}_Lb_R)$	\mathbf{C}
CSRR_emudd	$(ar{\mu}_L e_R)(d_L d_R)$	\mathbf{C}
CSRR_emuss	$(ar{\mu}_L e_R)(ar{s}_L s_R)$	\mathbf{C}
CSRR_emubb	$(ar{\mu}_L e_R)(ar{b}_L b_R)$	C
CTRR_muedd	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	\mathbf{C}
CTRR_muess	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}s_R)$	С
CTRR_muebb	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{b}_L\sigma_{\mu u}b_R)$	\mathbf{C}
CTRR_emudd	$(ar{\mu}_L \sigma^{\mu u} e_R) (ar{d}_L \sigma_{\mu u} d_R)$	\mathbf{C}
CTRR_emuss	$(ar{\mu}_L \sigma^{\mu u} e_R) (ar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
CTRR_emubb	$(\bar{\mu}_L \sigma^{\mu u} e_R)(\bar{b}_L \sigma_{\mu u} b_R)$	$^{\mathrm{C}}$

mutau

WC name	Operator	Type
Cgamma_taumu	$\bar{\mu}_L \sigma^{\mu u} au_R F_{\mu u}$	С
Cgamma_mutau	$ar{ au}_L \sigma^{\mu u} \mu_R F_{\mu u}$	\mathbf{C}
CVLL_eetaumu	$(ar{e}_L\gamma^\mu e_L)(\dot{ar{\mu}}_L\gamma_\mu au_L)$	\mathbf{C}
CVLL_mumutaumu	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{\mu}_L \dot{\gamma}_\mu au_L)$	\mathbf{C}
CVLL_taumutautau	$(ar{\mu}_L \gamma^\mu au_L) (ar{ au}_L \gamma_\mu au_L)$	\mathbf{C}
CVLL_taumuuu	$(\bar{\mu}_L \gamma^\mu au_L)(\bar{u}_L \dot{\gamma}_\mu u_L)$	\mathbf{C}
CVLL_taumucc	$(ar{\mu}_L \gamma^\mu au_L) (ar{c}_L \gamma_\mu c_L)$	\mathbf{C}
CVLL_taumudd	$(ar{\mu}_L \gamma^\mu au_L) (ar{d}_L \gamma_\mu d_L)$	\mathbf{C}
CVLL_taumuss	$(ar{\mu}_L \gamma^\mu au_L) (ar{s}_L \gamma_\mu s_L)$	\mathbf{C}
CVLL_taumubb	$(ar{\mu}_L \gamma^\mu au_L) (ar{b}_L \gamma_\mu b_L)$	\mathbf{C}
CVRR_eetaumu	$(ar{e}_R\gamma^\mu e_R)(ar{\mu}_R\gamma_\mu au_R)$	\mathbf{C}

Operator	Type
	C
	Č
	\mathbf{C}
	\mathbf{C}
	C
	C
	C
	C
	\mathbf{C}
$(ar{\mu}_L au_R)(ar{u}_Ru_L)$	\mathbf{C}
$(ar{\mu}_L au_R)(ar{c}_Rc_L)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{u}_Ru_L)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{c}_Rc_L)$	\mathbf{C}
$(ar{\mu}_L au_R)(ar{d}_Rd_L)$	\mathbf{C}
$(ar{\mu}_L au_R)(ar{s}_Rs_L)$	\mathbf{C}
$(ar{\mu}_L au_R)(ar{b}_Rb_L)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{d}_Rd_L)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{s}_Rs_L)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{b}_Rb_L)$	\mathbf{C}
$(ar{e}_L e_R)(ar{\mu}_L au_R)$	\mathbf{C}
$(ar{e}_L e_R)(ar{ au}_L \mu_R)$	\mathbf{C}
$(ar{e}_L\mu_R)(ar{ au}_Le_R)$	\mathbf{C}
$(ar{e}_L au_R)(ar{\mu}_Le_R)$	\mathbf{C}
$(ar{\mu}_L\mu_R)(ar{\mu}_L au_R)$	$^{\mathrm{C}}$
$(ar{\mu}_L\mu_R)(ar{ au}_L\mu_R)$	$^{\mathrm{C}}$
$(ar{\mu}_L au_R)(ar{ au}_L au_R)$	\mathbf{C}
$(ar{ au}_L\mu_R)(ar{ au}_L au_R)$	\mathbf{C}
	$(ar{\mu}_L au_R)(ar{c}_R c_L)$ $(ar{ au}_L \mu_R)(ar{u}_R u_L)$ $(ar{ au}_L \mu_R)(ar{c}_R c_L)$ $(ar{\mu}_L au_R)(ar{d}_R d_L)$ $(ar{\mu}_L au_R)(ar{d}_R d_L)$ $(ar{\mu}_L au_R)(ar{b}_R b_L)$ $(ar{ au}_L \mu_R)(ar{d}_R d_L)$ $(ar{ au}_L \mu_R)(ar{d}_R d_L)$ $(ar{ au}_L \mu_R)(ar{b}_R b_L)$ $(ar{ au}_L \mu_R)(ar{b}_R b_L)$ $(ar{e}_L e_R)(ar{\mu}_L au_R)$ $(ar{e}_L e_R)(ar{\mu}_L au_R)$ $(ar{e}_L e_R)(ar{\tau}_L \mu_R)$ $(ar{e}_L au_R)(ar{\tau}_L e_R)$ $(ar{e}_L au_R)(ar{\mu}_L e_R)$ $(ar{\mu}_L \mu_R)(ar{\mu}_L e_R)$ $(ar{\mu}_L \mu_R)(ar{\mu}_L e_R)$ $(ar{\mu}_L \mu_R)(ar{\mu}_L e_R)$ $(ar{\mu}_L \mu_R)(ar{\tau}_L \mu_R)$

WC name	Operator	Type
CSRR_taumuuu	$(\bar{\mu}_L au_R)(\bar{u}_L u_R)$	C
CSRR_taumucc	$(ar{\mu}_L au_R)(ar{c}_Lc_R)$	$^{\mathrm{C}}$
CSRR_mutauuu	$(ar{ au}_L\mu_R)(ar{u}_Lu_R)$	$^{\mathrm{C}}$
CSRR_mutaucc	$(ar{ au}_L\mu_R)(ar{c}_Lc_R)$	$^{\mathrm{C}}$
CTRR_taumuuu	$(ar{\mu}_L \sigma^{\mu u} au_R) (ar{u}_L \sigma_{\mu u} u_R)$	$^{\mathrm{C}}$
CTRR_taumucc	$(ar{\mu}_L \sigma^{\mu u} au_R) (ar{c}_L \sigma_{\mu u} c_R)$	\mathbf{C}
CTRR_mutauuu	$(ar{ au}_L\sigma^{\mu u}\mu_R)(ar{u}_L\sigma_{\mu u}u_R)$	\mathbf{C}
CTRR_mutaucc	$(ar{ au}_L\sigma^{\mu u}\mu_R)(ar{c}_L\sigma_{\mu u}c_R)$	\mathbf{C}
CSRR_taumudd	$(ar{\mu}_L au_R)(ar{d}_Ld_R)$	\mathbf{C}
CSRR_taumuss	$(ar{\mu}_L au_R)(ar{s}_Ls_R)$	\mathbf{C}
CSRR_taumubb	$(ar{\mu}_L au_R)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CSRR_mutaudd	$(ar au_L\mu_R)(ar d_Ld_R)$	$^{\mathrm{C}}$
CSRR_mutauss	$(ar{ au}_L\mu_R)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
CSRR_mutaubb	$(ar au_L\mu_R)(ar b_Lb_R)$	$^{\mathrm{C}}$
CTRR_taumudd	$(ar{\mu}_L \sigma^{\mu u} au_R) (ar{d}_L \sigma_{\mu u} d_R)$	$^{\mathrm{C}}$
CTRR_taumuss	$(ar{\mu}_L \sigma^{\mu u} au_R) (ar{s}_L \sigma_{\mu u} s_R)$	$^{\mathrm{C}}$
CTRR_taumubb	$(ar{\mu}_L\sigma^{\mu u} au_R)(ar{b}_L\sigma_{\mu u}b_R)$	\mathbf{C}
CTRR_mutaudd	$(ar{ au}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	\mathbf{C}
CTRR_mutauss	$(ar{ au}_L \sigma^{\mu u} \mu_R) (ar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
CTRR_mutaubb	$(ar au_L\sigma^{\mu u}\mu_R)(ar b_L\sigma_{\mu u}b_R)$	\mathbf{C}

taue

WC name	Operator	Type
Cgamma_taue	$\bar{e}_L \sigma^{\mu\nu} \tau_R F_{\mu\nu}$	С
Cgamma_etau	$ar{ au}_L \sigma^{\mu u} e_R \dot{F}_{\mu u}$	$^{\mathrm{C}}$
CVLL_eetaue	$(ar{e}_L\gamma^\mu e_L)(\dot{ar{e}}_L\gamma_\mu au_L)$	$^{\mathrm{C}}$
CVLL_muetaumu	$(ar{e}_L \gamma^\mu \mu_L) (ar{\mu}_L \gamma_\mu au_L)$	$^{\mathrm{C}}$
CVLL_tauetautau	$(ar{e}_L \gamma^\mu au_L) (ar{ au}_L \gamma_\mu au_L)$	$^{\mathrm{C}}$
CVLL_taueuu	$(ar{e}_L \gamma^\mu au_L) (ar{u}_L \gamma_\mu u_L)$	$^{\mathrm{C}}$
CVLL_tauecc	$(ar{e}_L \gamma^\mu au_L) (ar{c}_L \gamma_\mu c_L)$	$^{\mathrm{C}}$
CVLL_tauedd	$(ar{e}_L \gamma^\mu au_L) (ar{d}_L \gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLL_tauess	$(ar{e}_L \gamma^\mu au_L) (ar{s}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
CVLL_tauebb	$(ar{e}_L \gamma^\mu au_L) (ar{b}_L \gamma_\mu b_L)$	$^{\mathrm{C}}$
CVRR_eetaue	$(ar{e}_R \gamma^\mu e_R) (ar{e}_R \dot{\gamma}_\mu au_R)$	$^{\mathrm{C}}$
CVRR_muetaumu	$(ar{e}_R \gamma^\mu \mu_R) (ar{\mu}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVRR_tauetautau	$(\bar{e}_R \gamma^\mu au_R)(\bar{ au}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVRR_taueuu	$(\bar{e}_R \gamma^\mu au_R)(\bar{u}_R \gamma_\mu u_R)$	$^{\mathrm{C}}$
CVRR_tauecc	$(ar{e}_R \gamma^\mu au_R) (ar{c}_R \gamma_\mu c_R)$	$^{\mathrm{C}}$
CVRR_tauedd	$(ar{e}_R \gamma^\mu au_R) (ar{d}_R \gamma_\mu d_R)$	$^{\mathrm{C}}$
CVRR_tauess	$(ar{e}_R \gamma^\mu au_R) (ar{s}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
CVRR_tauebb	$(ar{e}_R \gamma^\mu au_R) (ar{b}_R \gamma_\mu b_R)$	\mathbf{C}

WC name	Operator	Type
CVLR_eetaue	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_R \gamma_\mu \tau_R)$	С
CVLR_muetaumu	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu \tau_R)$	\mathbf{C}
CVLR_taueee	$(\bar{e}_L \gamma^\mu au_L)(\bar{e}_R \gamma_\mu e_R)$	\mathbf{C}
CVLR_tauemumu	$(\bar{e}_L \gamma^\mu au_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	\mathbf{C}
CVLR_tauetautau	$(\bar{e}_L \gamma^\mu au_L)(\bar{ au}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_mumutaue	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{e}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_taumumue	$(\bar{\mu}_L \gamma^\mu au_L)(\bar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_tautautaue	$(\bar{ au}_L \gamma^\mu au_L)(\bar{e}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVLR_taueuu	$(\bar{e}_L \gamma^\mu au_L)(\bar{u}_R \gamma_\mu u_R)$	$^{\mathrm{C}}$
CVLR_tauecc	$(\bar{e}_L \gamma^\mu au_L)(\bar{c}_R \gamma_\mu c_R)$	$^{\mathrm{C}}$
CVLR_tauedd	$(ar{e}_L \gamma^\mu au_L) (ar{d}_R \gamma_\mu d_R)$	$^{\mathrm{C}}$
CVLR_tauess	$(ar{e}_L \gamma^\mu au_L) (ar{s}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
CVLR_tauebb	$(ar{e}_L \gamma^\mu au_L) (ar{b}_R \gamma_\mu b_R)$	$^{\mathrm{C}}$
CVLR_uutaue	$(\bar{u}_L \gamma^\mu u_L)(\bar{e}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVLR_cctaue	$(ar{c}_L \gamma^\mu c_L) (ar{e}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_ddtaue	$(ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVLR_sstaue	$(ar{s}_L \gamma^\mu s_L) (ar{e}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_bbtaue	$(ar{b}_L \gamma^\mu b_L) (ar{e}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CSRL_taueuu	$(ar{e}_L au_R)(ar{u}_Ru_L)$	\mathbf{C}
CSRL_tauecc	$(ar{e}_L au_R)(ar{c}_Rc_L)$	\mathbf{C}
CSRL_etauuu	$(ar{ au}_L e_R)(ar{u}_R u_L)$	\mathbf{C}
CSRL_etaucc	$(ar{ au}_L e_R)(ar{c}_R c_L)$	\mathbf{C}
CSRL_tauedd	$(ar{e}_L au_R)(d_Rd_L)$	\mathbf{C}
CSRL_tauess	$(ar{e}_L au_R)(ar{s}_Rs_L)$	\mathbf{C}
CSRL_tauebb	$(ar{e}_L au_R)(b_R^{}b_L)$	\mathbf{C}
CSRL_etaudd	$(ar{ au}_L e_R)(d_R d_L)$	\mathbf{C}
CSRL_etauss	$(ar{ au}_L e_R)(ar{ ilde{s}}_R s_L)$	\mathbf{C}
CSRL_etaubb	$(ar{ au}_L e_R)(ar{b}_R b_L)$	\mathbf{C}
CSRR_eetaue	$(ar{e}_L e_R)(ar{e}_L au_R)$	\mathbf{C}
CSRR_eeetau	$(ar{e}_L e_R)(ar{ au}_L e_R)$	\mathbf{C}
CSRR_muetaumu	$(\bar{e}_L \mu_R)(\bar{\mu}_L au_R)$	\mathbf{C}
CSRR_tauemumu	$(\bar{e}_L au_R)(\bar{\mu}_L \mu_R)$	C
CSRR_tauetautau	$(ar{e}_L au_R)(ar{ au}_L au_R)$	C
CSRR_emumutau	$(\bar{\mu}_L e_R)(\bar{ au}_L \mu_R)$	C
CSRR_mumuetau	$(\bar{\mu}_L \mu_R)(\bar{ au}_L e_R)$	C
CSRR_etautautau	$(ar{ au}_L e_R)(ar{ au}_L au_R)$	C
CSRR_taueuu	$(\bar{e}_L au_R)(\bar{u}_L u_R)$	C
CSRR_tauecc	$(\bar{e}_L au_R)(\bar{c}_L c_R)$	C
CSRR_etauuu	$(\bar{ au}_L e_R)(\bar{u}_L u_R)$	C
CSRR_etaucc	$(\bar{\tau}_L e_R)(\bar{c}_L c_R)$	C
CTRR_taueuu	$(\bar{e}_L \sigma^{\mu u} au_R) (\bar{u}_L \sigma_{\mu u} u_R)$	C
CTRR_tauecc	$(\bar{e}_L \sigma^{\mu u} au_R) (\bar{c}_L \sigma_{\mu u} c_R)$	C
CTRR_etauuu	$(\bar{\tau}_L \sigma^{\mu \nu} e_R)(\bar{u}_L \sigma_{\mu \nu} u_R)$	C
CTRR_etaucc	$(\bar{ au}_L \sigma^{\mu u} e_R)(\bar{c}_L \sigma_{\mu u} c_R)$	$^{\mathrm{C}}$

WC name	Operator	Type
CSRR_tauedd	$(ar{e}_L au_R)(ar{d}_Ld_R)$	C
CSRR_tauess	$(ar{e}_L au_R)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
CSRR_tauebb	$(ar{e}_L au_R)(ar{b}_Lb_R)$	$^{\mathrm{C}}$
CSRR_etaudd	$(ar{ au}_L e_R)(ar{d}_L d_R)$	$^{\mathrm{C}}$
CSRR_etauss	$(ar{ au}_L e_R)(ar{s}_L s_R)$	C
CSRR_etaubb	$(ar{ au}_L e_R)(ar{b}_L b_R)$	C
CTRR_tauedd	$(ar{e}_L\sigma^{\mu u} au_R)(ar{d}_L\sigma_{\mu u}d_R)$	C
CTRR_tauess	$(ar{e}_L\sigma^{\mu u} au_R)(ar{s}_L\sigma_{\mu u}s_R)$	C
CTRR_tauebb	$(ar{e}_L\sigma^{\mu u} au_R)(ar{b}_L\sigma_{\mu u}b_R)$	C
CTRR_etaudd	$(ar{ au}_L \sigma^{\mu u} e_R) (ar{d}_L \sigma_{\mu u} d_R)$	C
CTRR_etauss	$(ar{ au}_L\sigma^{\mu u}e_R)(ar{s}_L\sigma_{\mu u}s_R)$	\mathbf{C}
CTRR_etaubb	$(\bar{ au}_L \sigma^{\mu u} e_R)(\bar{b}_L \sigma_{\mu u} b_R)$	C

${\tt nunumue}$

WC name	Operator	Type
CVLL_nuenuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	С
CVLL_numunueemu	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	\mathbf{C}
CVLL_numunuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	\mathbf{C}
CVLL_numunumumue	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{e}_L \gamma_{\mu} \mu_L)$	\mathbf{C}
CVLL_nutaunueemu	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	\mathbf{C}
CVLL_nutaunuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	\mathbf{C}
CVLL_nutaunumuemu	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_L \gamma_{\mu} e_L)$	\mathbf{C}
CVLL_nutaunumumue	$=(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	\mathbf{C}
CVLL_nutaunutaumu	$\det[ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} \mu_L)$	\mathbf{C}
CVLR_nuenuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_numunueemu	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{R}\gamma_{\mu}e_{R})$	\mathbf{C}
CVLR_numunuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_numunumumue	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{e}_R \gamma_{\mu} \mu_R)$	\mathbf{C}
CVLR_nutaunueemu	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu}e_{R})$	\mathbf{C}
CVLR_nutaunuemue	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_nutaunumuemu	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_R \gamma_{\mu} e_R)$	\mathbf{C}
CVLR_nutaunumumue	$=(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_nutaunutaumu	$\det(\bar{\nu}_{\tau L}\gamma^{\mu}\nu_{\tau L})(\bar{e}_R\gamma_{\mu}\mu_R)$	С

${\tt nunumutau}$

WC name	Operator	Type
CVLL_nuenuetaumu	$(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{\mu}_{L}\gamma_{\mu} au_{L})$	C
CVLL_numunuemuta	ı $(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ au}_{L}\gamma_{\mu}^{}\mu_{L})$	$^{\mathrm{C}}$
CVLL_numunuetaum	ı $(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{L}\gamma_{\mu} au_{L})$	$^{\mathrm{C}}$

WC name	Operator	Type
CVLL_numunumuta	$ au$ mu $(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L})(ar{\mu}_{L} \gamma_{\mu} au_{L})$	C
CVLL_nutaunuem	$\mathtt{utau}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu}\mu_{L})$	\mathbf{C}
CVLL_nutaunueta	$ au$ mu $(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
CVLL_nutaunumur	muta $ar{m{ u}}_{\mu L}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu}\mu_{L})$	\mathbf{C}
	$ au = (ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_{L} \gamma_{\mu} au_{L})$	$^{\mathrm{C}}$
CVLL_nutaunuta	$ au$ utau $ar{m}_L \gamma^\mu u_{ au L})(ar{\mu}_L \gamma_\mu au_L)$	\mathbf{C}
CVLR_nuenuetaur	mu $(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{\mu}_{R}\gamma_{\mu} au_{R})$	\mathbf{C}
CVLR_numunuemu	tau $(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ au}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_numunueta	umu $(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{R}\gamma_{\mu} au_{R})$	\mathbf{C}
CVLR_numunumuta	$ au$ mu $(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{\mu}_R \gamma_{\mu} au_R)$	\mathbf{C}
CVLR_nutaunuem	$\mathtt{utau}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ au}_{R}\gamma_{\mu}\mu_{R})$	\mathbf{C}
CVLR_nutaunueta	$ au$ mu $(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu} au_{R})$	\mathbf{C}
CVLR_nutaunumur	muta $ar{m{ u}}_{\mu L}\gamma^{\mu} u_{ au L})(ar{ au}_R\gamma_{\mu}\mu_R)$	\mathbf{C}
	$ au = (ar{u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_R \gamma_{\mu} au_R)$	\mathbf{C}
	utav $ar{m}_{L}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu} au_{R})$	C

nunutaue

WC name	Operator	Type
CVLL_nuenuetaue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_{L}\gamma_{\mu}\tau_{L})$	C
CVLL_numunueetau	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{ au}_{L}\gamma_{\mu}e_{L})$	\mathbf{C}
CVLL_numunuetaue	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{e}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
CVLL_numunumutaue	$e~(ar{ u}_{\mu L}\gamma^{\mu} u_{\mu L})(ar{e}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
	$a \left(ar{ u}_{eL} \gamma^{\mu} u_{ au L} ight) \left(ar{ au}_{L} \gamma_{\mu} e_{L} ight)$	\mathbf{C}
CVLL_nutaunuetaue	$e \left(\bar{ u}_{eL} \gamma^{\mu} u_{ au L} \right) \left(\bar{e}_{L} \gamma_{\mu} au_{L} \right)$	\mathbf{C}
CVLL_nutaunumueta	$\mathrm{au}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu}e_{L})$	\mathbf{C}
	$\det[ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
	$\mathrm{au}(ar{m{arPsi}}_{ au L}\gamma^{\mu} u_{ au L})(ar{e}_{L}\gamma_{\mu} au_{L})$	$^{\mathrm{C}}$
CVLR_nuenuetaue	$(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{e}_{R}\gamma_{\mu} au_{R})$	\mathbf{C}
CVLR_numunueetau	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{ au}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
CVLR_numunuetaue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_R\gamma_{\mu}\tau_R)$	$^{\mathrm{C}}$
CVLR_numunumutaue	$e \left(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L} \right) \left(ar{e}_R \gamma_{\mu} au_R \right)$	$^{\mathrm{C}}$
CVLR_nutaunueetau	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{\tau}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
CVLR_nutaunuetaue	$e \left(\bar{\nu}_{eL} \gamma^{\mu} \nu_{\tau L} \right) \left(\bar{e}_R \gamma_{\mu} \tau_R \right)$	\mathbf{C}
CVLR_nutaunumueta	$\sin(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{ au}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
CVLR_nutaunumutau	$\det[ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_R\gamma_{\mu} au_R)$	$^{\mathrm{C}}$
CVLR_nutaunutauta	$\Delta u (ar{m{arphi}}_{ au L} \gamma^{\mu} u_{ au L}) (ar{e}_R \gamma_{\mu} au_R)$	C

ffnunu

Operator	Type
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{b}_L\gamma_{\mu}b_L)$	R
$rac{4\ddot{G_F}}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{c}_L\gamma_{\mu}c_L)$	R
$rac{4\ddot{G_F}}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{d}_L\gamma_{\mu}d_L)$	R
$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_L\gamma_{\mu}e_L)$	R
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{\mu}_L\gamma_{\mu}\mu_L)$	R
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{s}_L\gamma_{\mu}s_L)$	R
$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{ au}_L\gamma_\mu au_L)$	R
$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{u}_L\gamma_\mu u_L)$	R
$rac{4 \overline{G_F}}{\sqrt{2}} (ar{ u}_{eL} \gamma^\mu u_{\mu L}) (ar{b}_L \gamma_\mu b_L)$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{c}_L\gamma_{\mu}c_L)$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{d}_L\gamma_{\mu}d_L)$	\mathbf{C}
$rac{4 \overline{G_F}}{\sqrt{2}} (ar{ u}_{eL} \gamma^\mu u_{\mu L}) (ar{e}_L \gamma_\mu e_L)$	$^{\mathrm{C}}$
$rac{4 \widetilde{G_F}}{\sqrt{2}} (ar{ u}_{eL} \gamma^\mu u_{\mu L}) (ar{\mu}_L \gamma_\mu \mu_L)$	\mathbf{C}
$rac{4 \overline{G_F}}{\sqrt{2}} (ar{ u}_{eL} \gamma^\mu u_{\mu L}) (ar{s}_L \gamma_\mu s_L)$	\mathbf{C}
$\mathrm{au}^{4\overline{G_F}}_{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ au}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{u}_L\gamma_{\mu}u_L)$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{b}_L\gamma_{\mu}b_L)$	\mathbf{C}
$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{c}_L\gamma_\mu c_L)$	$^{\mathrm{C}}$
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{d}_L\gamma_{\mu}d_L)$	$^{\mathrm{C}}$
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{e}_L\gamma_\mu e_L)$	\mathbf{C}
i $rac{4G_F}{\sqrt{2}}(ar u_{eL}\gamma^\mu u_{ au L})(ar\mu_L\gamma_\mu\mu_L)$	$^{\mathrm{C}}$
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{s}_L\gamma_{\mu}s_L)$	$^{\mathrm{C}}$
ta $rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{u}_L\gamma_{\mu}u_L)$	\mathbf{C}
$rac{4G_F}{\sqrt{2}}(ar u_{\mu L}\gamma^\mu u_{\mu L})(ar b_L\gamma_\mu b_L)$	R
$rac{4G_F}{\sqrt{2}}(ar u_{\mu L}\gamma^\mu u_{\mu L})(ar c_L\gamma_\mu c_L)$	R
$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{\mu L})(ar{d}_L\gamma_{\mu}d_L)$	R
$rac{4G_F}{\sqrt{2}}(ar u_{\mu L}\gamma^\mu u_{\mu L})(ar e_L\gamma_\mu e_L)$	R
	R
$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{\mu L})(ar{s}_L\gamma_{\mu}s_L)$	R
	R
	R
$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{b}_L\gamma_{\mu}b_L)$	$^{\mathrm{C}}$
$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{c}_L\gamma_{\mu}c_L)$	$^{\mathrm{C}}$
$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{d}_L\gamma_{\mu}d_L)$	$^{\mathrm{C}}$
$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_L\gamma_{\mu}e_L)$	$^{\mathrm{C}}$
nu $rac{4G_F}{\sqrt{2}}(ar u_{\mu L}\gamma^\mu u_{ au L})(ar\mu_L\gamma_\mu\mu_L)$	С
	$\frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{b}_{L}\gamma_{\mu}b_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{c}_{L}\gamma_{\mu}c_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{d}_{L}\gamma_{\mu}d_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_{L}\gamma_{\mu}e_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\mu}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\tau}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\tau}_{L}\gamma_{\mu}r_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\tau}_{L}\gamma_{\mu}r_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\nu}_{L}\gamma_{\mu}u_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{b}_{L}\gamma_{\mu}d_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{c}_{L}\gamma_{\mu}c_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{c}_{L}\gamma_{\mu}c_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{\nu}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{\nu}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{\nu}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu}L)(\bar{\nu}_{L}\gamma_{\mu}\mu_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau}L)(\bar{\nu}_{L}\gamma_{\mu}c_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{\mu}L\gamma^{\mu}\nu_{\mu}L)(\bar{\nu}_{L}\gamma_{\mu}c_{L}) \\ 4G$

WC name	Operator	Type
CVLL_numunutauss	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVLL_numunutautau	$\mathrm{t}^{\frac{4\sqrt{7}}{4\sqrt{2}}}_{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu} au_{L})$	\mathbf{C}
CVLL_numunutauuu	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{u}_L\gamma_{\mu}u_L)$	\mathbf{C}
	$+rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{b}_L\gamma_{\mu}b_L)$	R
	$+rac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{c}_L\gamma_{\mu}c_L)$	R
CVLL_nutaunutaudd	$4 rac{4 ar{G_F}}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{d}_L \gamma_\mu d_L)$	R
CVLL_nutaunutauee	$+rac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{e}_L\gamma_\mu e_L)$	R
_	$\min_{\sqrt{2}}^{4G_F} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{\mu}_L \gamma_\mu \mu_L)$	R
CVLL_nutaunutauss	$+rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{s}_L\gamma_\mu s_L)$	R
	$u^{4G_{\Pi}}_{\sqrt{2}}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{ au}_{L}\gamma_{\mu} au_{L})$	R
CVLL_nutaunutauuu	$-\frac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{u}_L\gamma_\mu u_L)$	R
CVLR_nuenuebb	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{b}_R\gamma_{\mu}b_R)$	R
CVLR_nuenuecc	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{c}_R\gamma_{\mu}c_R)$	R
CVLR_nuenuedd	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{d}_R\gamma_\mu d_R)$	R
CVLR_nuenueee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_R\gamma_{\mu}e_R)$	R
CVLR_nuenuemumu	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_nuenuess	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{s}_R\gamma_{\mu}s_R)$	R
CVLR_nuenuetautau		R
CVLR_nuenueuu	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{u}_R\gamma_\mu u_R)$	R
CVLR_nuenumubb	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{b}_R\gamma_\mu b_R)$	\mathbf{C}
CVLR_nuenumucc	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{c}_R\gamma_\mu c_R)$	\mathbf{C}
CVLR_nuenumudd	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{d}_R\gamma_\mu d_R)$	\mathbf{C}
CVLR_nuenumuee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_R\gamma_{\mu}e_R)$	С
CVLR_nuenumumumu	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{\mu}_R\gamma_\mu\mu_R)$	С
CVLR_nuenumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CVLR_nuenumutauta	$u^{4\overline{G_F}}_{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{ au}_R\gamma_\mu au_R)$	\mathbf{C}
CVLR_nuenumuuu	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{u}_R\gamma_\mu u_R)$	С
CVLR_nuenutaubb	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{b}_R\gamma_\mu b_R)$	С
CVLR_nuenutaucc	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{c}_R\gamma_\mu c_R)$	С
CVLR_nuenutaudd	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{d}_R\gamma_\mu d_R)$	\mathbf{C}
CVLR_nuenutauee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{e}_R\gamma_{\mu}e_R)$	С
CVLR_nuenutaumumu	1/9 (/ 1 / // //-/ /	С
CVLR_nuenutauss	$rac{4ar{\mathcal{G}_F}}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{s}_R\gamma_{\mu}s_R)$	С
CVLR_nuenutautaut	$a_{\sqrt{2}}^{4G_F}(\bar{\nu}_{eL}\gamma^{\mu} u_{\tau L})(\bar{\tau}_R\gamma_{\mu} au_R)$	\mathbf{C}
CVLR_nuenutauuu	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CVLR_numunumubb	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{b}_R\gamma_\mu b_R)$	R
CVLR_numunumucc	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{c}_R\gamma_\mu c_R)$	R

WC name	Operator	Type
CVLR_numunumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{d}_R\gamma_{\mu}d_R)$	R
CVLR_numunumuee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{e}_R\gamma_{\mu}e_R)$	R
CVLR_numunumumumu	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_numunumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{s}_R\gamma_\mu s_R)$	R
CVLR_numunumutaut	$\sinrac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{ au}_R\gamma_\mu au_R)$	R
CVLR_numunumuuu	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{u}_R\gamma_\mu u_R)$	R
${\tt CVLR_numunutaubb}$	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{b}_R\gamma_\mu b_R)$	\mathbf{C}
${\tt CVLR_numunutaucc}$	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{c}_R\gamma_{\mu}c_R)$	\mathbf{C}
${\tt CVLR_numunutaudd}$	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{d}_R\gamma_{\mu}d_R)$	\mathbf{C}
CVLR_numunutauee	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{\tau L})(\bar{e}_R\gamma_{\mu}e_R)$	\mathbf{C}
CVLR_numunutaumum	$\sin^{4G_F} (ar{ u}_{\mu L} \gamma^\mu u_{ au L}) (ar{\mu}_R \gamma_\mu \mu_R)$	\mathbf{C}
CVLR_numunutauss	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{s}_R\gamma_{\mu}s_R)$	\mathbf{C}
CVLR_numunutautau	$\mathrm{d} \frac{4G_F}{\sqrt{2}} (ar{ u}_{\mu L} \gamma^\mu u_{ au L}) (ar{ au}_R \gamma_\mu au_R)$	$^{\mathrm{C}}$
CVLR_numunutauuu	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(\bar{u}_R\gamma_{\mu}u_R)$	\mathbf{C}
CVLR_nutaunutaubb	$=rac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{b}_R\gamma_\mu b_R)$	R
CVLR_nutaunutaucc	$\pm rac{4G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{c}_R \gamma_\mu c_R)$	R
CVLR_nutaunutaudd	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{d}_R\gamma_\mu d_R)$	R
CVLR_nutaunutauee	$+rac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{e}_R\gamma_\mu e_R)$	R
CVLR_nutaunutaumu	$m \frac{4G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{\mu}_R \gamma_\mu \mu_R)$	R
CVLR_nutaunutauss	$s rac{4 G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{s}_R \gamma_\mu s_R)$	R
CVLR_nutaunutauta	$u_{\sqrt{2}}^{4C}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{ au}_{R}\gamma_{\mu} au_{R})$	R
CVLR_nutaunutauuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\tau L}\gamma^{\mu}\nu_{\tau L})(\bar{u}_R\gamma_{\mu}u_R)$	R

muemutau

WC name	Operator	Type
CVLL_muemutau	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{ au}_L \gamma_\mu \mu_L)$	C
CVRR_muemutau	$(\bar{e}_R\gamma^\mu\mu_R)(\bar{ au}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_muemutau	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{ au}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_taumuemu	$(\bar{\mu}_L \gamma^\mu \tau_L)(\bar{\mu}_R \gamma_\mu e_R)$	$^{\mathrm{C}}$
CSRR_muemutau	$(ar{e}_L\mu_R)(ar{ au}_L\mu_R)$	$^{\mathrm{C}}$
CSRR_emutaumu	$(ar{\mu}_L e_R)(ar{\mu}_L au_R)$	\mathbf{C}

etauemu

WC name	Operator	Type
CVLL_muetaue	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_L \gamma_\mu \tau_L)$	C
CVRR_muetaue	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{e}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_muetaue	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu au_R)$	\mathbf{C}
CVLR_tauemue	$(\bar{e}_L \gamma^\mu au_L)(\bar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
CSRR_muetaue	$(ar{e}_L\mu_R)(ar{e}_L au_R)$	\mathbf{C}
CSRR_emuetau	$(ar{\mu}_L e_R)(ar{ au}_L e_R)$	C

dbcu

WC name	Operator	Type
CVLL_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L\gamma^{\mu}b_L)(\bar{d}_L\gamma_{\mu}u_L)$	
CVLR_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L\gamma^{\mu}b_L)(\bar{d}_R\gamma_{\mu}u_R)$	\mathbf{C}
CVRL_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R\gamma^\mu b_R)(\bar{d}_L\gamma_\mu u_L)$	\mathbf{C}
CVRR_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R\gamma^\mu b_R)(\bar{d}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CSLL_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_Rb_L)(\bar{d}_Ru_L)$	$^{\mathrm{C}}$
CSLR_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_Rb_L)(\bar{d}_Lu_R)$	$^{\mathrm{C}}$
CSRL_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_Lb_R)(\bar{d}_Ru_L)$	\mathbf{C}
CSRR_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_Lb_R)(\bar{d}_Lu_R)$	\mathbf{C}
CTLL_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R\sigma^{\mu\nu}b_L)(\bar{d}_R\sigma_{\mu\nu}u_L)$	\mathbf{C}
CTRR_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L\sigma^{\mu\nu}b_R)(\bar{d}_L\sigma_{\mu\nu}u_R)$	$^{\mathrm{C}}$
CVLLt_bcud	$rac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(ar{c}_L^lpha\gamma^\mu b_L^eta)(ar{d}_L^eta\gamma_\mu u_L^lpha)$	$^{\mathrm{C}}$
CVLRt_bcud	$\frac{4\dot{G}_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L^{lpha}\gamma^{\mu}b_L^{eta})(\bar{d}_R^{eta}\gamma_{\mu}u_R^{lpha})$	\mathbf{C}
CVRLt_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_L^{\beta}\gamma_{\mu}u_L^{\alpha})$	\mathbf{C}
CVRRt_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R^{\alpha}\gamma^{\mu}b_R^{\beta})(\bar{d}_R^{\beta}\gamma_{\mu}u_R^{\alpha})$	\mathbf{C}
CSLLt_bcud	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R^{\alpha}b_L^{\beta})(\bar{d}_R^{\beta}u_L^{\alpha})$	\mathbf{C}
CSLRt_bcud	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R^{lpha}b_L^{eta})(\bar{d}_L^{eta}u_R^{lpha})$	\mathbf{C}
CSRLt_bcud	$rac{4 \widetilde{G_F}}{\sqrt{2}} V_{cb} V_{ud}^* (ar{c}_L^{lpha} b_R^{eta}) (ar{d}_R^{eta} u_L^{lpha})$	\mathbf{C}
CSRRt_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L^{lpha}b_R^{eta})(\bar{d}_L^{eta}u_R^{lpha})$	\mathbf{C}
CTLLt_bcud	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_R^{\alpha}\sigma^{\mu\nu}b_L^{\beta})(\bar{d}_R^{\beta}\sigma_{\mu\nu}u_L^{\alpha})$	\mathbf{C}
CTRRt_bcud	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{cb}V_{ud}^*(\bar{c}_L^\alpha\sigma^{\mu\nu}b_R^\beta)(\bar{d}_L^\beta\sigma_{\mu\nu}u_R^\alpha)$	С

sbcu

WC name	Operator	Type
CVLL_bcus	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_L\gamma^{\mu}b_L)(\bar{s}_L\gamma_{\mu}u_L)$	\overline{C}
CVLR_bcus	$\frac{4\widetilde{G}_{F}^{2}}{\sqrt{2}}V_{cb}V_{us}^{*}(\bar{c}_{L}\gamma^{\mu}b_{L})(\bar{s}_{R}\gamma_{\mu}u_{R})$	\mathbf{C}

WC name	Operator	Type
CVRL_bcus	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_R\gamma^\mu b_R)(\bar{s}_L\gamma_\mu u_L)$	C
CVRR_bcus	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_R\gamma^\mu b_R)(\bar{s}_R\gamma_\mu u_R)$	\mathbf{C}
CSLL_bcus	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_Rb_L)(\bar{s}_Ru_L)$	\mathbf{C}
CSLR_bcus	$\frac{4\widetilde{G}_F^r}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_Rb_L)(\bar{s}_Lu_R)$	$^{\mathrm{C}}$
CSRL_bcus	$\frac{4\check{G}_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_Lb_R)(\bar{s}_Ru_L)$	$^{\mathrm{C}}$
CSRR_bcus	$\frac{4\check{G}_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_Lb_R)(\bar{s}_Lu_R)$	$^{\mathrm{C}}$
CTLL_bcus	$\frac{4\check{G}_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_R\sigma^{\mu\nu}b_L)(\bar{s}_R\sigma_{\mu\nu}u_L)$	$^{\mathrm{C}}$
CTRR_bcus	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_L\sigma^{\mu\nu}b_R)(\bar{s}_L\sigma_{\mu\nu}u_R)$	$^{\mathrm{C}}$
CVLLt_bcus	$rac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_L^lpha\gamma^\mu b_L^eta)(ar{s}_L^eta\gamma_\mu u_L^lpha)$	\mathbf{C}
CVLRt_bcus	$rac{4 \check{G}_F^2}{\sqrt{2}} V_{cb} V_{us}^* (ar{c}_L^lpha \gamma^\mu b_L^eta) (ar{s}_R^eta \gamma_\mu u_R^lpha)$	\mathbf{C}
CVRLt_bcus	$rac{4\overset{\circ}{G_F}}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_R^lpha\gamma^\mu b_R^eta)(ar{s}_L^eta\gamma_\mu u_L^lpha)$	\mathbf{C}
CVRRt_bcus	$rac{4G_F^2}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_R^lpha\gamma^\mu b_R^eta)(ar{s}_R^eta\gamma_\mu u_R^lpha)$	\mathbf{C}
CSLLt_bcus	$\frac{4 \check{G}_F}{\sqrt{2}} V_{cb} V_{us}^* (\bar{c}_R^{lpha} b_L^{eta}) (\bar{s}_R^{eta} u_L^{lpha})$	\mathbf{C}
CSLRt_bcus	$rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_R^lpha b_L^eta)(ar{s}_L^eta u_R^lpha)$	\mathbf{C}
CSRLt_bcus	$rac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_L^lpha b_R^eta)(ar{s}_R^eta u_L^lpha)$	\mathbf{C}
CSRRt_bcus	$rac{4G_F^2}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_L^lpha b_R^eta)(ar{s}_L^eta u_R^lpha)$	\mathbf{C}
CTLLt_bcus	$rac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(ar{c}_R^lpha\sigma^{\mu u}b_L^eta)(ar{s}_R^eta\sigma_{\mu u}u_L^lpha)$	\mathbf{C}
CTRRt_bcus	$\frac{4G_F}{\sqrt{2}}V_{cb}V_{us}^*(\bar{c}_L^\alpha\sigma^{\mu\nu}b_R^\beta)(\bar{s}_L^\beta\sigma_{\mu\nu}u_R^\alpha)$	С