Basis flavio (EFT WET-3)

Sectors

The effective Lagrangian is defined as

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

sdsd

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

sd

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

WC name	Operator	Type
CSp_sdmumu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}\mu)$	С
CP_sdmumu	$\frac{4Q_F^2}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\mu}\gamma_5\mu)$	\mathbf{C}
CPp_sdmumu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}\gamma_5\mu)$	\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	$\frac{4\tilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e}{16\pi^{2}}m_{s}(\bar{d}_{R}\sigma^{\mu\nu}s_{L})F_{\mu\nu}$	\mathbf{C}
C8_sd	$\frac{4G_F^2}{\sqrt{2}}V_{ts}V_{td}^*\frac{g_s}{16\pi^2}m_s(\bar{d}_L\sigma^{\mu\nu}T^as_R)G_{\mu\nu}^a$	\mathbf{C}
C8p_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^* \frac{g_s}{16\pi^2}m_s(ar{d}_R\sigma^{\mu u}T^as_L)G_{\mu u}^a$	\mathbf{C}
CVLL_sdss	$rac{4\widetilde{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}(ar{d}_{L}\gamma^{\mu}s_{L})(ar{s}_{L}\gamma_{\mu}s_{L})$	\mathbf{C}
CVLR_sdss	$\frac{4 \overset{\leftarrow}{Q_F}}{\sqrt{2}} V_{ts} V_{td}^* (\bar{d}_L \gamma^\mu s_L) (\bar{s}_R \gamma_\mu s_R)$	\mathbf{C}
CVRL_sdss	$\frac{4\ddot{Q}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^\mu s_R)(\bar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVRR_sdss	$rac{4reve{V_{cF}}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu s_R)$	\mathbf{C}
CSLL_sdss	$\frac{4G_F}{V}V^*(\bar{d}_{DST})(\bar{s}_{DST})$	\mathbf{C}
CSLR_sdss	$\frac{\sqrt{2}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{s}_Ls_R)$	\mathbf{C}
CSRL_sdss	$\frac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{s}_Rs_L)$	\mathbf{C}
CSRR_sdss	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{s}_Ls_R)$	\mathbf{C}
CTLL_sdss	$rac{4 G_F}{\sqrt{2}} V_{ts} V_{td}^* (ar{d}_R \sigma^{\mu u} s_L) (ar{s}_R \sigma_{\mu u} s_L)$	\mathbf{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)$	\mathbf{C}
CVLL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{d}_L\gamma_\mu d_L)$	\mathbf{C}
CVLR_sddd	$rac{4\ddot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{d}_R\gamma_\mu d_R)$	\mathbf{C}
CVRL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{d}_L\gamma_\mu d_L)$	\mathbf{C}
CVRR_sddd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CSLL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{d}_Rd_L)$	\mathbf{C}
CSLR_sddd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{d}_Ld_R)$	\mathbf{C}
CSRL_sddd	$\frac{\sqrt{2}}{\sqrt{5}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{d}_Rd_L)$	\mathbf{C}
CSRR_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{d}_Ld_R)$	\mathbf{C}
CTLL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\sigma^{\mu u}s_L)(ar{d}_R\sigma_{\mu u}d_L)$	\mathbf{C}
CTRR_sddd	$rac{4reve{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\sigma^{\mu u}s_R)(ar{d}_L\sigma_{\mu u}d_R)$	\mathbf{C}
CVLL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVLR_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CVRL_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVRR_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CSLL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Ru_L)$	$^{\mathrm{C}}$
CSLR_sduu	$\frac{4\check{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Lu_R)$	\mathbf{C}
CSRL_sduu	$\frac{4\check{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Ru_L)$	\mathbf{C}
CSRR_sduu	$\frac{4\check{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_R)$	\mathbf{C}
CTLL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^{\mu}s_L)(\bar{u}_R\gamma_{\mu}u_R)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^{\mu}s_R)(\bar{u}_L\gamma_{\mu}u_L)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\gamma^{\mu}s_R)(\bar{u}_R\gamma_{\mu}u_R)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Ru_L)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Lu_R)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_L)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_R)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_R)$ $\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_L)(\bar{u}_R\sigma_{\mu\nu}u_L)$	\mathbf{C}

WC name	Operator	Type
CTRR_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	
CVLLt_sduu	$rac{4ar{Q}_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)$	\mathbf{C}
CVLRt_sduu	$\frac{4\overleftarrow{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^{\alpha}\gamma^{\mu}s_L^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha})$	\mathbf{C}
CVRLt_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}s_R^{\beta})(\bar{u}_L^{\beta}\gamma_{\mu}u_L^{\alpha})$	\mathbf{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\dot{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	$rac{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{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L^lpha s_R^eta)(ar{u}_R^eta u_L^lpha)$	\mathbf{C}
CSRRt_sduu	$rac{4 \overline{G_F}}{\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{4 \overleftarrow{G_F}}{\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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^\alpha\sigma^{\mu\nu}s_R^\beta)(\bar{u}_L^\beta\sigma_{\mu\nu}u_R^\alpha)$	C

sdnunu

WC name	Operator	Type
CL_sdnuenue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	С
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}
CL_sdnutaunutau	$\frac{4Q_F^2}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\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	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\mathbf{C}
CL_sdnumunutau	$rac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*rac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{ u}_{ au}\gamma_{\mu}(1-\gamma_5) u_{\mu})$	\mathbf{C}
CL_sdnutaunumu	$rac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_L\gamma^{\mu}d_L)(ar{ u}_{\mu}\gamma_{\mu}(1-\gamma_5) u_{ 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	$\frac{4Q_F^2}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{ au})$	\mathbf{C}
CR_sdnuenue	$\frac{4Q_F^2}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	\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	$\frac{4Q_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	\mathbf{C}
CR_sdnuenumu	$\frac{4Q_F^2}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	\mathbf{C}
CR_sdnumunue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	\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	$rac{4G_F^2}{\sqrt{2}}V_{td}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^\mu d_R)(ar{ u}_\mu\gamma_\mu(1-\gamma_5) u_ au)$	\mathbf{C}
CR_sdnuenutau	$rac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*rac{e^2}{16\pi^2}(ar{s}_R\gamma^\mu d_R)(ar{ u}_ au\gamma_\mu(1-\gamma_5) u_e)$	\mathbf{C}
CR_sdnutaunue	$\frac{\sqrt[4]{2}}{\sqrt{2}} V_{td} V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^\mu d_R) (\bar{\nu}_e \gamma_\mu (1 - \gamma_5) \nu_\tau)$	\mathbf{C}

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 \overleftarrow{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 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	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}e)$	\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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{\mu}\gamma_5 e)$	С

sdmue

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

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	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{eL})$	$^{\mathrm{C}}$
CSR_suenue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{e}_R \nu_{eL})$	$^{\mathrm{C}}$
CSL_suenue	$-\frac{4G_F^2}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{e}_R \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R s_L)(\bar{e}_R \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R \sigma^{\mu\nu} s_L)(\bar{e}_R \sigma_{\mu\nu} \nu_{eL})$	$^{\mathrm{C}}$
CT_suenue	$-rac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{eL})$	$^{\mathrm{C}}$
CVL_suenumu	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_L\gamma^{\mu}s_L)(ar{e}_L\gamma_{\mu} u_{\mu L}) \ -rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^{\mu}s_R)(ar{e}_L\gamma_{\mu} u_{\mu L})$	$^{\mathrm{C}}$
CSR_suenumu	$-rac{4\overset{\circ}{V}\overset{\circ}{V}_{2}}{\sqrt{2}}V_{us}(\bar{u}_{L}s_{R})(\bar{e}_{R} u_{\mu L})$	\mathbf{C}

WC name	Operator	Type
CSL_suenumu	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R\nu_{\mu L})$	C
CT_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R s_L)(ar{e}_R u_{\mu L}) \ -rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R \sigma^{\mu u} s_L)(ar{e}_R \sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_suenutau	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{e}_L\gamma_{\mu}\nu_{\tau L})$	\mathbf{C}
CVR_suenutau	$-rac{4ar{Q}_F^2}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CSL_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{e}_R u_{ au L})$	\mathbf{C}
CT_suenutau	$-\frac{4\bar{G}_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{\tau L})$	C

usmunu

WC name	Operator	Type
CVL_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	\overline{C}
CVR_sumunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{eL})$	\mathbf{C}
CSL_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{\mu}_R\nu_{eL})$	\mathbf{C}
CT_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{eL})$	\mathbf{C}
CVL_sumunumu	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^\mu s_L)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CVR_sumunumu	$-rac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^\mu s_R)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_sumunumu	$-\frac{4\tilde{G_F}}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{\mu L})$	\mathbf{C}
CSL_sumunumu	$-rac{4 ilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{\mu}_R u_{\mu L})$	\mathbf{C}
CT_sumunumu	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{\mu L})$	\mathbf{C}
CVL_sumunutau	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{\mu}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CVR_sumunutau	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^\mu s_R)(\bar{\mu}_L\gamma_\mu u_{\tau L})$	\mathbf{C}
CSR_sumunutau	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{\tau L})$	\mathbf{C}
CSL_sumunutau	$-rac{4 ilde{G_F}}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CT_sumunutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	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	$\begin{array}{l} -\frac{4G_{F}}{\sqrt{2}}V_{ud}(\bar{u}_{L}\gamma^{\mu}d_{L})(\bar{e}_{L}\gamma_{\mu}\nu_{eL}) \\ -\frac{4G_{F}}{\sqrt{2}}V_{ud}(\bar{u}_{R}\gamma^{\mu}d_{R})(\bar{e}_{L}\gamma_{\mu}\nu_{eL}) \\ -\frac{4G_{F}}{\sqrt{2}}V_{ud}(\bar{u}_{L}d_{R})(\bar{e}_{R}\nu_{eL}) \end{array}$	\mathbf{C}
CSR_duenue	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{e}_R\nu_{eL})$	\mathbf{C}
CSL_duenue	$-\frac{4\widetilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{e}_R\nu_{eL})$	\mathbf{C}
CT_duenue	$-\frac{4G_F^2}{\sqrt{2}}V_{ud}(\bar{u}_R d_L)(\bar{e}_R \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R \sigma^{\mu\nu} d_L)(\bar{e}_R \sigma_{\mu\nu} \nu_{eL})$	C

WC name	Operator	Type
CVL_duenumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{e}_L\gamma_\mu\nu_{\mu L})$	
CVR_duenumu	$-rac{4G_F^2}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_duenumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{e}_R\nu_{\mu L})$	\mathbf{C}
CSL_duenumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_duenumu	$-rac{4reve{G_F}}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_duenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_L\gamma^\mu d_L)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_duenutau	$-rac{4reve{G}_F}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{ au L})$	\mathbf{C}
CSR_duenutau	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CSL_duenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CT_duenutau	$-rac{4ar{G}_F}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	С

${\tt udmunu}$

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

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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	$\frac{4\widetilde{G}_F}{\sqrt{2}}f^{ABC}\widetilde{G}^{A u}_{\mu}G^{B ho}_{ u}G^{C\mu}_{ ho}$	\mathbf{R}

WC name	Operator	Type
C7_uu	$rac{4G_F}{\sqrt{2}} rac{e}{16\pi^2} m_u ar{u}_L \sigma^{\mu u} u_R F_{\mu u}$	С
_ C7_dd	$rac{4G_F}{\sqrt{2}} rac{e}{16\pi^2} m_d ar{d}_L \sigma^{\mu u} d_R F_{\mu u}$	$^{\mathrm{C}}$
_ C7_ss	$\frac{\sqrt{2}}{\sqrt{6}}\frac{16\pi^2}{\sqrt{6}}\frac{e}{16\pi^2}m_s\bar{s}_L\sigma^{\mu\nu}s_RF_{\mu\nu}$	$^{\mathrm{C}}$
_ C7_ee	$rac{4 \widetilde{G}_F}{\sqrt{2}} rac{e}{16\pi^2} m_s ar{s}_L \sigma^{\mu u} s_R F_{\mu u} \ rac{4 G_F}{\sqrt{2}} rac{e}{16\pi^2} m_e ar{e}_L \sigma^{\mu u} e_R F_{\mu u}$	$^{\mathrm{C}}$
- C7_mumu	$\frac{\sqrt{2}}{\sqrt{2}} \frac{16\pi^2}{16\pi^2} m_{\mu} \bar{\mu}_L \sigma^{\mu\nu} \mu_R F_{\mu\nu}$	$^{\mathrm{C}}$
_ C8_uu	$rac{4G_F}{\sqrt{2}}rac{g_s}{16\pi^2}m_uar{u}_L\sigma^{\mu u}T^Au_RG^A_{\mu u}$	$^{\mathrm{C}}$
_ C8_dd	$rac{4G_F}{\sqrt{2}} rac{g_s}{16\pi^2} m_d ar{d}_L \sigma^{\mu u} T^A d_R G^A_{\mu u}$	\mathbf{C}
_ C8_ss	$rac{4G_F}{\sqrt{2}}rac{g_s}{16\pi^2}m_sar{s}_L\sigma^{\mu u}T^As_RG^A_{\mu u}$	\mathbf{C}
_ CTRR_eeuu	$rac{4G_F}{\sqrt{2}}(ar{e}_L\sigma^{\mu u}e_R)(ar{u}_L\sigma_{\mu u}u_R)$	\mathbf{C}
- CTRR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	\mathbf{C}
- CTRR_eedd	$\frac{4G_F}{F}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{d}_L\sigma_{\mu\nu}d_R)$	\mathbf{C}
- CTRR_eess	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{s}_L\sigma_{\mu\nu}s_R)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}$	$^{\mathrm{C}}$
- CTRR_mumudd	$\frac{\sqrt{2}}{4G_F}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{d}_L\sigma_{\mu\nu}d_R)$	\mathbf{C}
CTRR_mumuss	$\frac{4G_F}{F}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{s}_L\sigma_{\mu\nu}s_R)$	\mathbf{C}
CS1RR_uuuu	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{s}_L\sigma_{\mu\nu}s_R)}{\frac{4G_F}{\sqrt{2}}(\bar{u}_Lu_R)(\bar{u}_Lu_R)}$	\mathbf{C}
CS8RR_uuuu	$\frac{\sqrt{2}}{4G_F}(\bar{u}_L T^A u_B)(\bar{u}_L T^A u_B)$	$^{ m C}$
CS1RR_uudd	$\frac{\sqrt{2}}{4G_F}(\bar{u}_I u_B)(\bar{d}_I d_B)$	$^{ m C}$
CS1RR_uuss	$\frac{4G_F}{4G_F}(\bar{u}_L u_R)(\bar{s}_L s_R)$	$^{ m C}$
CS8RR_uudd	$ \frac{\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{u}_L T^A u_R)}{\frac{4G_F}{\sqrt{2}}(\bar{u}_L u_R)(\bar{d}_L d_R)} \\ \frac{\frac{4G_F}{\sqrt{2}}(\bar{u}_L u_R)(\bar{s}_L s_R)}{\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{d}_L T^A d_R)} $	\mathbf{C}
CS8RR_uuss	$rac{4G_F}{\sqrt{2}}(ar{u}_L T^A u_R)(ar{s}_L T^A s_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_dssd	$\frac{\sqrt{2}}{4G_F}(\bar{d}_L s_R)(\bar{s}_L d_R)$	\mathbf{C}
- CS1RR_ssss	$rac{4reve{G}_F}{\sqrt{2}}(ar{d}_L s_R)(ar{s}_L d_R) \ rac{4G_F}{\sqrt{2}}(ar{s}_L s_R)(ar{s}_L s_R)$	\mathbf{C}
- CS8RR_dddd	$rac{4G_F}{\sqrt{2}}(ar{d}_L T^A d_R)(ar{d}_L T^A d_R)$	$^{\mathrm{C}}$
- CS8RR_ddss	$rac{4G_F}{\sqrt{2}}(ar{d}_LT^Ad_R)(ar{s}_LT^As_R)$	$^{\mathrm{C}}$
- CS8RR_dssd	$\frac{\sqrt{2}}{4G_F}(\bar{d}_L T^A s_R)(\bar{s}_L T^A d_R)$	$^{\mathrm{C}}$
- CS8RR_ssss	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}_L T^A s_R)(\bar{s}_L T^A d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R)}$	$^{\mathrm{C}}$
- CS1RR_uddu	$\frac{\sqrt{2}}{4G_F}(\bar{u}_L d_R)(\bar{d}_L u_R)$	\mathbf{C}
- CS1RR_ussu	$rac{4 \ddot{G}_F}{\sqrt{2}} (ar{u}_L d_R) (ar{d}_L u_R) \ rac{4 G_F}{\sqrt{2}} (ar{u}_L s_R) (ar{s}_L u_R)$	$^{\mathrm{C}}$
CS8RR_uddu	$\frac{4G_F}{2}(\bar{q}_T T^A d_D)(d_T T^A q_D)$	$^{\mathrm{C}}$
- CS8RR_ussu	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{u}_L T^A s_R)(\bar{s}_L T^A u_R)$	$^{\mathrm{C}}$
CSRL_eedd	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{e}_L e_R)(\bar{d}_R d_L)$	$^{\mathrm{C}}$
- CSRL_eess	$\frac{\sqrt{2}}{\sqrt{5}}(\bar{e}_L e_R)(\bar{s}_R s_L)$	$^{\mathrm{C}}$
CSRL_eeuu	$\frac{4G_F}{\sqrt{c}}(\bar{e}_L e_R)(\bar{u}_R u_L)$	$^{\mathrm{C}}$
- CSRL_mumudd	$\begin{array}{l} \frac{4G_{F}}{\sqrt{2}}(\bar{u}_{L}T^{A}s_{R})(\bar{s}_{L}T^{A}u_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{e}_{L}e_{R})(\bar{d}_{R}d_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{e}_{L}e_{R})(\bar{s}_{R}s_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{e}_{L}e_{R})(\bar{u}_{R}u_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{e}_{L}e_{R})(\bar{d}_{R}d_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\mu}_{L}\mu_{R})(\bar{d}_{R}d_{L}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\mu}_{L}\mu_{R})(\bar{s}_{R}s_{L}) \end{array}$	$^{\mathrm{C}}$
- CSRL_mumuss	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{s}_Rs_L)$	$^{\mathrm{C}}$
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WC name	Operator	Type
CSRL_mumuuu	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{u}_Ru_L)$	\mathbf{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)$	\mathbf{C}
CSRR_eemumu	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{\mu}_L \mu_R)$	\mathbf{C}
CSRR_eess	$rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{s}_L s_R)$	\mathbf{C}
CSRR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{u}_L u_R)$	\mathbf{C}
CSRR_emumue	$rac{4G_F}{\sqrt{2}}(ar{e}_L\mu_R)(ar{\mu}_Le_R)$	\mathbf{C}
CSRR_mumudd	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{d}_Ld_R)$	\mathbf{C}
CSRR_mumumumu	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{\mu}_L\mu_R)$	\mathbf{C}
CSRR_mumuss	$\frac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{s}_Ls_R)$	\mathbf{C}
CSRR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{u}_Lu_R)$	\mathbf{C}
CV1LL_uudd	$rac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{d}_L\gamma_\mu d_L)$	R
CV1LL_uuss	$\frac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{s}_L\gamma_\mu s_L)$	R
CV1LR_dddd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_ddss	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{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)$	\mathbf{C}
CV1LR_ssdd	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_ssss	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{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_uddu	$rac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu d_L)(ar{d}_R\gamma_\mu u_R)$	\mathbf{C}
CV1LR_ussu	$rac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu u_R)$	\mathbf{C}
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_uudd	$rac{4G_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_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_L\gamma_{\mu}T^Ad_L)$	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_dddd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu T^A d_L)(\bar{d}_R\gamma_\mu T^A d_R)$	R
CV8LR_ddss	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	R
CV8LR_dduu	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^{\mu}T^Ad_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	R
CV8LR_dssd	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu T^A s_L)(ar{s}_R\gamma_\mu T^A d_R)$	$^{\mathrm{C}}$
CV8LR_ssdd	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	R
CV8LR_ssss	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	R
CV8LR_ssuu	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{u}_R\gamma_{\mu}T^Au_R)$	R
CV8LR_uddu	$\frac{\sqrt{2}}{\sqrt{2}} (\bar{a}_L \gamma^{\mu} T \ \bar{a}_L) (\bar{a}_R \gamma_{\mu} T \ \bar{a}_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^{\mu} T^A d_L) (\bar{s}_R \gamma_{\mu} T^A s_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^{\mu} T^A d_L) (\bar{u}_R \gamma_{\mu} T^A u_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}_L \gamma^{\mu} T^A s_L) (\bar{s}_R \gamma_{\mu} T^A d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{s}_L \gamma^{\mu} T^A s_L) (\bar{d}_R \gamma_{\mu} T^A d_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{s}_L \gamma^{\mu} T^A s_L) (\bar{s}_R \gamma_{\mu} T^A s_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{s}_L \gamma^{\mu} T^A s_L) (\bar{u}_R \gamma_{\mu} T^A u_R) \\ \frac{4G_F}{\sqrt{2}} (\bar{u}_L \gamma^{\mu} T^A d_L) (\bar{d}_R \gamma_{\mu} T^A u_R) $	$^{\mathrm{C}}$
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WC name	Operator	Type
CV8LR_ussu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^Au_R)$	C
CV8LR_uudd	$\frac{4\ddot{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	R
CV8LR_uuss	$\frac{4\tilde{G}_{F}^{2}}{\sqrt{2}}(\bar{u}_{L}\gamma^{\mu}T^{A}u_{L})(\bar{s}_{R}\gamma_{\mu}T^{A}s_{R})$	R
CV8LR_uuuu	$\frac{4\tilde{Q}_{L}^{2}}{\sqrt{2}}(\bar{u}_{L}\gamma^{\mu}T^{A}u_{L})(\bar{u}_{R}\gamma_{\mu}T^{A}u_{R})$	${ m R}$
CV8RR_uudd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}_R\gamma^\mu T^A u_R)(\bar{d}_R\gamma_\mu T^A d_R)$	${ m R}$
CV8RR_uuss	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}_R\gamma^\mu T^A u_R)(\bar{s}_R\gamma_\mu T^A s_R)$	R
CVLL_dddd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{d}_L\gamma_\mu d_L)$	R
CVLL_ddss	$rac{4ar{G}_{F}}{\sqrt{2}}(ar{d}_{L}\gamma^{\mu}d_{L})(ar{s}_{L}\gamma_{\mu}s_{L})$	R
CVLL_dssd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu s_L)(\bar{s}_L\gamma_\mu d_L)$	R
CVLL_eedd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^\mu e_L)(\bar{d}_L\gamma_\mu d_L)$	R
CVLL_eeee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{e}_L\gamma_{\mu}e_L)$	R
CVLL_eemumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{\mu}_L\gamma_{\mu}\mu_L)$	R
CVLL_eess	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{s}_L\gamma_{\mu}s_L)$	${ m R}$
CVLL_eeuu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{u}_L\gamma_{\mu}u_L)$	${ m R}$
CVLL_mumudd	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{d}_L\gamma_\mu d_L)$	${ m R}$
CVLL_mumumumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\mu}_L\gamma_\mu\mu_L)$	${ m R}$
CVLL_mumuss	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{s}_L\gamma_\mu s_L)$	${ m R}$
CVLL_mumuuu	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{u}_L\gamma_\mu u_L)$	R
CVLL_ssss	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{s}_L \gamma^\mu s_L) (\bar{s}_L \gamma_\mu s_L)$	${ m R}$
CVLL_uuuu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{u}_L\gamma_\mu u_L)$	R
CVLR_ddee	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{e}_R\gamma_\mu e_R)$	${ m R}$
CVLR_ddmumu	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu d_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	${ m R}$
CVLR_eedd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{d}_R\gamma_{\mu}d_R)$	${ m R}$
CVLR_eeee	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{e}_R\gamma_{\mu}e_R)$	${ m R}$
CVLR_eemumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{\mu}_R\gamma_{\mu}\mu_R)$	${ m R}$
CVLR_eess	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{s}_R\gamma_{\mu}s_R)$	${ m R}$
CVLR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L\gamma^{\mu}e_L)(\bar{u}_R\gamma_{\mu}u_R)$	${ m R}$
CVLR_emumue	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_L\gamma^\mu\mu_L)(\bar{\mu}_R\gamma_\mu e_R)$	\mathbf{C}
CVLR_mumudd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{d}_R\gamma_\mu d_R)$	R
CVLR_mumuee	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{e}_R\gamma_\mu e_R)$	R
CVLR_mumumumu	$\frac{4\overset{G}{\mathcal{F}_{F}}}{\sqrt{2}}(\bar{\mu}_{L}\gamma^{\mu}\mu_{L})(\bar{\mu}_{R}\gamma_{\mu}\mu_{R})$ $\frac{4\overset{G}{\mathcal{F}_{F}}}{\sqrt{2}}(\bar{\mu}_{L}\gamma^{\mu}\mu_{L})(\bar{s}_{R}\gamma_{\mu}s_{R})$	R
CVLR_mumuss	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{s}_R\gamma_\mu s_R)$	R
CVLR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{u}_R\gamma_\mu u_R)$	R
CVLR_ssee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}s_L)(\bar{e}_R\gamma_{\mu}e_R)$	R
CVLR_ssmumu	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{s}_L \gamma^{\mu} s_L)(\bar{e}_R \gamma_{\mu} e_R)}{\frac{4G_F}{\sqrt{2}}(\bar{s}_L \gamma^{\mu} s_L)(\bar{\mu}_R \gamma_{\mu} \mu_R)}$ $\frac{4G_F}{\sqrt{2}}(\bar{u}_L \gamma^{\mu} u_L)(\bar{e}_R \gamma_{\mu} e_R)$ $\frac{4G_F}{\sqrt{2}}(\bar{u}_L \gamma^{\mu} u_L)(\bar{\mu}_R \gamma_{\mu} \mu_R)$	${ m R}$
CVLR_uuee	$rac{4ar{G_F}}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{e}_R\gamma_\mu e_R)$	${ m R}$
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WC name	Operator	Type
CVRR_dddd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_R\gamma^\mu d_R)(\bar{d}_R\gamma_\mu d_R)$	R
CVRR_ddss	$rac{4\check{G}_F^c}{\sqrt{2}}(ar{d}_R\gamma^\mu d_R)(ar{s}_R\gamma_\mu s_R)$	R
CVRR_dssd	$\frac{4\check{G}_F^2}{\sqrt{2}}(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu d_R)$	R
CVRR_eedd	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{d}_R\gamma_\mu d_R)$	R
CVRR_eeee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{e}_R\gamma^{\mu}e_R)(\bar{e}_R\gamma_{\mu}e_R)$	R
CVRR_eemumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{e}_R \gamma^\mu e_R) (\bar{\mu}_R \gamma_\mu \mu_R)$	R
CVRR_eess	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{s}_R\gamma_\mu s_R)$	R
CVRR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^\mu e_R)(\bar{u}_R\gamma_\mu u_R)$	R
CVRR_mumudd	$\frac{4G_F}{\sqrt{2}}(ar{\mu}_R\gamma^\mu\mu_R)(ar{d}_R\gamma_\mu d_R)$	R
CVRR_mumumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{\mu}_R\gamma_\mu\mu_R)$	R
CVRR_mumuss	$\frac{4 \check{G}_F}{\sqrt{2}} (\bar{\mu}_R \gamma^\mu \mu_R) (\bar{s}_R \gamma_\mu s_R)$	R
CVRR_mumuuu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{u}_R\gamma_\mu u_R)$	R
CVRR_ssss	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{s}_R\gamma^\mu s_R)(\bar{s}_R\gamma_\mu s_R)$	R
CVRR_uuuu	$rac{4 ar{G}_F}{\sqrt{2}} (ar{u}_R \gamma^\mu u_R) (ar{u}_R \gamma_\mu u_R)$	R

mue

WC name	Operator	Type
Cgamma_mue	$\bar{e}_L \sigma^{\mu\nu} \mu_R F_{\mu\nu}$	C
Cgamma_emu	$ar{\mu}_L \sigma^{\mu u} e_R \dot{F}_{\mu u}$	$^{\mathrm{C}}$
CVLL_eemue	$(ar{e}_L \gamma^\mu e_L)(\dot{ar{e}_L} \gamma_\mu \mu_L)$	$^{\mathrm{C}}$
CVLL_muemumu	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_L \dot{\gamma}_\mu \mu_L)$	$^{\mathrm{C}}$
CVLL_mueuu	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{u}_L \gamma_\mu u_L)$	$^{\mathrm{C}}$
CVLL_muedd	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_L \gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLL_muess	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
CVRR_eemue	$(ar{e}_R\gamma^\mu e_R)(ar{e}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVRR_muemumu	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVRR_mueuu	$(ar{e}_R\gamma^\mu\mu_R)(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CVRR_muedd	$(\bar{e}_R\gamma^\mu\mu_R)(\bar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CVRR_muess	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{s}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
CVLR_eemue	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_mueee	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu e_R)$	$^{\mathrm{C}}$
CVLR_muemumu	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_mumumue	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_mueuu	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{u}_R \gamma_\mu u_R)$	$^{\mathrm{C}}$
CVLR_muedd	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu d_R)$	$^{\mathrm{C}}$
CVLR_muess	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_R \gamma_\mu s_R)$	\mathbf{C}
CVLR_uumue	$(\bar{u}_L \gamma^\mu u_L)(\bar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
CVLR_ddmue	$(ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}

WC name	Operator	Type
CVLR_ssmue	$(\bar{s}_L \gamma^\mu s_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
CSRL_mueuu	$(\bar{e}_L\mu_R)(\bar{u}_Ru_L)$	C
CSRL_emuuu	$(ar{\mu}_L e_R)(ar{u}_R u_L)$	\mathbf{C}
CSRL_muedd	$(ar{e}_L\mu_R)(ar{d}_Rd_L)$	C
CSRL_muess	$(ar{e}_L\mu_R)(ar{s}_Rs_L)$	\mathbf{C}
CSRL_emudd	$(ar{\mu}_L e_R)(ar{d}_R d_L)$	\mathbf{C}
CSRL_emuss	$(ar{\mu}_L e_R)(ar{s}_R s_L)$	\mathbf{C}
CSRR_eemue	$(ar{e}_L e_R)(ar{e}_L \mu_R)$	\mathbf{C}
CSRR_eeemu	$(ar{e}_L e_R)(ar{\mu}_L e_R)$	\mathbf{C}
CSRR_muemumu	$(ar{e}_L\mu_R)(ar{\mu}_L\mu_R)$	\mathbf{C}
CSRR_emumumu	$(ar{\mu}_L e_R)(ar{\mu}_L \mu_R)$	\mathbf{C}
CSRR_mueuu	$(ar{e}_L\mu_R)(ar{u}_Lu_R)$	С
CSRR_emuuu	$(ar{\mu}_L e_R)(ar{u}_L u_R)$	С
CTRR_mueuu	$(\bar{e}_L \sigma^{\mu\nu} \mu_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	С
CTRR_emuuu	$(\bar{\mu}_L \sigma^{\mu\nu} e_{\underline{R}})(\bar{u}_L \sigma_{\mu\nu} u_R)$	С
CSRR_muedd	$(ar{e}_L\mu_R)(d_Ld_R)$	\mathbf{C}
CSRR_muess	$(ar{e}_L\mu_R)(ar{s}_Ls_R)$	\mathbf{C}
CSRR_emudd	$(ar{\mu}_L e_R)(ar{d}_L d_R)$	\mathbf{C}
CSRR_emuss	$(ar{\mu}_L e_R)(ar{s}_L s_R)$	\mathbf{C}
CTRR_muedd	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	\mathbf{C}
CTRR_muess	$(\bar{e}_L \sigma^{\mu u} \mu_R) (\bar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
CTRR_emudd	$(ar{\mu}_L \sigma^{\mu u} e_R) (ar{d}_L \sigma_{\mu u} d_R)$	\mathbf{C}
CTRR_emuss	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	С

nunumue

WC name	Operator	Type
CVLL_nuenuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	C
CVLL_numunueemu	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{\mu}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
CVLL_numunuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
CVLL_numunumumue	$(\bar{ u}_{\mu L} \gamma^{\mu} \overline{ u}_{\mu L}) (\bar{e}_L \gamma_{\mu} \mu_L)$	$^{\mathrm{C}}$
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	$\mathrm{i}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
CVLL_nutaunumumue	$=(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
CVLL_nutaunutaum	1 $ otin ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} \mu_L)$	$^{\mathrm{C}}$
CVLR_nuenuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{e}_R\gamma_{\mu}\mu_R)$	$^{\mathrm{C}}$
CVLR_numunueemu	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{\mu}_R\gamma_{\mu}e_R)$	\mathbf{C}
CVLR_numunuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{e}_R\gamma_{\mu}\mu_R)$	\mathbf{C}
CVLR_numunumumue	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (\bar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$
CVLR_nutaunueemu	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{\mu}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
CVLR_nutaunuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{e}_{R}\gamma_{\mu}\mu_{R})$	$^{\mathrm{C}}$

WC name	Operator	Type
CVLR_nutaunumue	$\mathtt{mu}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu}e_{R})$	C
CVLR_nutaunumum	ue $(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$
CVLR_nutaunutau	$\mathtt{mu}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	$^{\mathrm{C}}$

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WC name	Operator	Type
CVLL_nuenuedd	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{d}_L\gamma_{\mu}d_L)$	R
CVLL_nuenueee	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{e}_L\gamma_\mu e_L)$	R
CVLL_nuenuemumu	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{eL})(\bar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_nuenuess	$\frac{4\overset{\sim}{G_F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{s}_L\gamma_{\mu}s_L)$	R
CVLL_nuenueuu	$\frac{4\overset{\circ}{G_F}}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{u}_L\gamma_{\mu}u_L)$	R
CVLL_nuenumudd	$\frac{4\check{G}_F^2}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{\mu L})(\bar{d}_L\gamma_\mu d_L)$	\mathbf{C}
CVLL_nuenumuee	$\frac{4\tilde{G}_F^2}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{e}_L\gamma_\mu e_L)$	\mathbf{C}
CVLL_nuenumumumu	$\frac{4\check{G}_F^2}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{\mu L})(\bar{\mu}_L\gamma_\mu\mu_L)$	\mathbf{C}
CVLL_nuenumuss	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{s}_L\gamma_\mu s_L)$	\mathbf{C}
CVLL_nuenumuuu	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{u}_L\gamma_\mu u_L)$	\mathbf{C}
CVLL_nuenutaudd	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{\tau L})(\bar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLL_nuenutauee	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{e}_L\gamma_{\mu}e_L)$	$^{\mathrm{C}}$
CVLL_nuenutaumumu	$4\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{\mu}_L\gamma_{\mu}\mu_L)$	$^{\mathrm{C}}$
CVLL_nuenutauss	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{s}_L\gamma_{\mu}s_L)$	\mathbf{C}
CVLL_nuenutauuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{u}_L\gamma_{\mu}u_L)$	\mathbf{C}
${\tt CVLL_numunumudd}$	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{d}_L\gamma_\mu d_L)$	R
CVLL_numunumuee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{e}_L\gamma_{\mu}e_L)$	R
CVLL_numunumumumu	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_numunumuss	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{s}_L\gamma_{\mu}s_L)$	R
CVLL_numunumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{u}_L\gamma_{\mu}u_L)$	R
${\tt CVLL_numunutaudd}$	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{\tau L})(\bar{d}_L\gamma_{\mu}d_L)$	$^{\mathrm{C}}$
CVLL_numunutauee	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{\tau L})(\bar{e}_L\gamma_{\mu}e_L)$	\mathbf{C}
CVLL_numunutaumum	$\sin^{4G_{F}}_{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
CVLL_numunutauss	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\tau L})(\bar{s}_L\gamma_{\mu}s_L)$	$^{\mathrm{C}}$
CVLL_numunutauuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\tau L})(\bar{u}_L\gamma_{\mu}u_L)$	\mathbf{C}
CVLL_nutaunutaudd	$4rac{4 ilde{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{d}_L\gamma_\mu d_L)$	R
	$\pm rac{4 ilde{G}_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{e}_L \gamma_\mu e_L)$	R
CVLL_nutaunutaumu	$\frac{d\tilde{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{\mu}_L\gamma_\mu\mu_L)$	${ m R}$
	$s rac{4 \check{G}_F^2}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{s}_L \gamma_\mu s_L)$	${ m R}$
CVLL_nutaunutauuu	$4\frac{4\tilde{G}_F^2}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{u}_L\gamma_\mu u_L)$	R
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WC name	Operator	Type
CVLR_nuenuedd	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{d}_R\gamma_{\mu}d_R)$	R
CVLR_nuenueee	$\frac{4\overset{\sim}{G_F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_R\gamma_{\mu}e_R)$	${ m R}$
CVLR_nuenuemumu	$\frac{4\tilde{G}_F^2}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{eL})(\bar{\mu}_R\gamma_\mu\mu_R)$	${ m R}$
CVLR_nuenuess	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{eL})(\bar{s}_R\gamma_\mu s_R)$	${ m R}$
CVLR_nuenueuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{u}_R\gamma_{\mu}u_R)$	R
CVLR_nuenumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{d}_R\gamma_{\mu}d_R)$	\mathbf{C}
CVLR_nuenumuee	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_R\gamma_{\mu}e_R)$	\mathbf{C}
${\tt CVLR_nuenumumumu}$	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{\mu}_R\gamma_{\mu}\mu_R)$	\mathbf{C}
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_nuenumuuu	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{u}_R\gamma_\mu u_R)$	\mathbf{C}
CVLR_nuenutaudd	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{d}_R\gamma_\mu d_R)$	\mathbf{C}
CVLR_nuenutauee	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{e}_R\gamma_{\mu}e_R)$	$^{\mathrm{C}}$
CVLR_nuenutaumumu	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{\mu}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_nuenutauss	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{s}_R\gamma_{\mu}s_R)$	\mathbf{C}
CVLR_nuenutauuu	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{u}_R\gamma_{\mu}u_R)$	$^{\mathrm{C}}$
CVLR_numunumudd	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{d}_R\gamma_\mu d_R)$	${ m R}$
CVLR_numunumuee	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{\mu L})(ar{e}_R\gamma_{\mu}e_R)$	\mathbf{R}
CVLR_numunumumumumumumumumumumumumumumumumum	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{\mu}_R\gamma_\mu\mu_R)$	\mathbf{R}
CVLR_numunumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{s}_R\gamma_\mu s_R)$	\mathbf{R}
CVLR_numunumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{u}_R\gamma_{\mu}u_R)$	\mathbf{R}
${\tt CVLR_numunutaudd}$	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(\bar{d}_R\gamma_{\mu}d_R)$	$^{\mathrm{C}}$
${\tt CVLR_numunutauee}$	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{\mu L}\gamma^{\mu} u_{\tau L})(\bar{e}_R\gamma_{\mu}e_R)$	$^{\mathrm{C}}$
CVLR_numunutaumum	$\sin^{4G_F} \sqrt{2} (ar{ u}_{\mu L} \gamma^\mu u_{ au L}) (ar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
${\tt CVLR_numunutauss}$	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{s}_R\gamma_{\mu}s_R)$	$^{\mathrm{C}}$
${\tt CVLR_numunutauuu}$	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\tau L})(\bar{u}_R\gamma_{\mu}u_R)$	$^{\mathrm{C}}$
CVLR_nutaunutaudd	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{d}_R\gamma_\mu d_R)$	\mathbf{R}
CVLR_nutaunutaue	$=rac{4G_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{e}_R\gamma_\mu e_R)$	\mathbf{R}
CVLR_nutaunutaumu	$\frac{dG_F}{\sqrt{2}}(\bar{ u}_{ au L}\gamma^\mu u_{ au L})(\bar{\mu}_R\gamma_\mu\mu_R)$	${ m R}$
CVLR_nutaunutauss	$s rac{4 \widetilde{G}_F^2}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu u_{ au L}) (ar{s}_R \gamma_\mu s_R)$	R
CVLR_nutaunutauuu	$1 \frac{4\widetilde{G}_F^2}{\sqrt{2}} (\bar{\nu}_{\tau L} \gamma^\mu \nu_{\tau L}) (\bar{u}_R \gamma_\mu u_R)$	R