# 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	$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 e)$	$\mathbf{C}$
C10_sdee	$rac{4G_F^2}{\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 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)$	$\mathbf{C}$
CS_sdee	$\frac{4 \bar{G}_F}{\sqrt{2}} V_{ts} V_{td}^* \frac{e^2}{16\pi^2} m_s(\bar{d}_L s_R)(\bar{e}e)$	$\mathbf{C}$
CSp_sdee	$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}e)$	$\mathbf{C}$
CP_sdee	$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 e)$	$\mathbf{C}$
CPp_sdee	$rac{4 ar{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	$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}\mu)$	$\mathbf{C}$
C9p_sdmumu	$rac{4ar{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)$	$\mathbf{C}$
C10_sdmumu	$rac{4 ar{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{4ar{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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\mu}\mu)$	$\mathbf{C}$
CSp_sdmumu	$\frac{4G_F^2}{\sqrt{2}}V_{ts}V_{td}^* \frac{e^2}{16\pi^2}m_s(\bar{d}_R s_L)(\bar{\mu}\mu)$	$\mathbf{C}$
CP_sdmumu	$rac{4ar{G}_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)$	$\mathbf{C}$

WC name	Operator	Type
CPp_sdmumu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}\gamma_5\mu)$	С
C7_sd	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e}{16\pi^2}m_s(\bar{d}_L\sigma^{\mu\nu}s_R)F_{\mu\nu}$	$\mathbf{C}$
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	$rac{4 G_F^2}{\sqrt{2}} V_{ts} V_{td}^* rac{g_s}{16\pi^2} m_s (\bar{d}_L \sigma^{\mu  u} T^a s_R) G^a_{\mu  u}$	$\mathbf{C}$
C8p_sd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{g_s}{16\pi^2}m_s(\bar{d}_R\sigma^{\mu\nu}T^as_L)G_{\mu\nu}^a$	$^{\mathrm{C}}$
CVLL_sdss	$rac{4ar{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	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu s_R)$	$^{\mathrm{C}}$
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)$	$^{\mathrm{C}}$
CVRR_sdss	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu s_R)$	$^{\mathrm{C}}$
CSLL_sdss	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Rs_L)(ar{s}_Rs_L)$	$\mathbf{C}$
CSLR_sdss	$\frac{4\bar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{s}_Ls_R)$	$\mathbf{C}$
CSRL_sdss	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{s}_Rs_L)$	$\mathbf{C}$
CSRR_sdss	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_Ls_R)(ar{s}_Ls_R)$	$\mathbf{C}$
CTLL_sdss	$rac{4ar{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)$	$^{\mathrm{C}}$
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)$	$^{\mathrm{C}}$
CVLR_sddd	$rac{4ar{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)$	$^{\mathrm{C}}$
CVRR_sddd	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{d}_R\gamma_\mu d_R)$	$\mathbf{C}$
CSLL_sddd	$\frac{4\bar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{d}_Rd_L)$	$\mathbf{C}$
CSLR_sddd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRL_sddd	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L s_R)(ar{d}_R d_L)$	$\mathbf{C}$
CSRR_sddd	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{d}_Ld_R)$	$\mathbf{C}$
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{4ar{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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L\gamma^\mu s_L)(\bar{u}_L\gamma_\mu u_L)$	$^{\mathrm{C}}$
CVLR_sduu	$rac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_L\gamma^\mu s_L)(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CVRL_sduu	$rac{4ar{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R\gamma^\mu s_R)(ar{u}_L\gamma_\mu u_L)$	$^{\mathrm{C}}$
CVRR_sduu	$rac{4ar{G_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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Ru_L)$	$\mathbf{C}$
CSLR_sduu	$\frac{4\bar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Rs_L)(\bar{u}_Lu_R)$	$\mathbf{C}$
CSRL_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Ru_L)$	$\mathbf{C}$
CSRR_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_R)$	$^{\mathrm{C}}$
CTLL_sduu	$\frac{4\ddot{G_F}}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_L)(\bar{u}_R\sigma_{\mu\nu}u_L)$	$\mathbf{C}$
CTRR_sduu	$ \frac{\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(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{\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Ru_L)}{\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_Ls_R)(\bar{u}_Lu_R)} \\ \frac{\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)}{\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)} \\ \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)}{\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)} \\ \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)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \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)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)} \\ \frac{4G_F}{\sqrt{2}}V_{td}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma_{\mu\nu}u_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)} \\ \frac{4G_F}{\sqrt{2}}V_{td}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)} \\ \frac{4G_F}{\sqrt{2}}V_{td}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)} \\ \frac{4G_F}{\sqrt{2}}V_{td}V_{td}^*(\bar{d}_R\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)(\bar{u}_L\sigma^{\mu\nu}s_R)}{\frac{4G_F}{\sqrt{2}}V_{td}^*(\bar{u}_L\sigma^{\mu\nu}s_R)}$	$^{\mathrm{C}}$
CVLLt_sduu	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^\alpha\gamma^\mu s_L^\beta)(\bar{u}_L^\beta\gamma_\mu u_L^\alpha)$	$\mathbf{C}$

WC name	Operator	Type
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)$	C
CVRLt_sduu	$\frac{4\tilde{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R^{lpha}\gamma^{\mu}s_R^{eta})(\bar{u}_L^{eta}\gamma_{\mu}u_L^{lpha})$	$\mathbf{C}$
CVRRt_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R^{\alpha}\gamma^{\mu}s_R^{\beta})(\bar{u}_R^{\beta}\gamma_{\mu}u_R^{\alpha})$	$\mathbf{C}$
CSLLt_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R^{\alpha}s_L^{\beta})(\bar{u}_R^{\beta}u_L^{\alpha})$	$\mathbf{C}$
CSLRt_sduu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*(ar{d}_R^{lpha}s_L^{eta})(ar{u}_L^{eta}u_R^{lpha})$	$\mathbf{C}$
CSRLt_sduu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^{lpha}s_R^{eta})(\bar{u}_R^{eta}u_L^{lpha})$	$\mathbf{C}$
CSRRt_sduu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^{lpha}s_R^{eta})(\bar{u}_L^{eta}u_R^{lpha})$	$\mathbf{C}$
CTLLt_sduu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_R^{lpha}\sigma^{\mu u}s_L^{eta})(\bar{u}_R^{eta}\sigma_{\mu u}u_L^{lpha})$	$\mathbf{C}$
CTRRt_sduu	$\frac{4\bar{G}_F}{\sqrt{2}}V_{ts}V_{td}^*(\bar{d}_L^\alpha\sigma^{\mu\nu}s_R^\beta)(\bar{u}_L^\beta\sigma_{\mu\nu}u_R^\alpha)$	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	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	$\mathbf{C}$
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	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_L\gamma^{\mu}d_L)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	$\mathbf{C}$
CL_sdnutaunumu	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2}(\bar{s}_L\gamma^\mu d_L)(\bar{\nu}_\mu\gamma_\mu(1-\gamma_5)\nu_ au)$	$\mathbf{C}$
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	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_e)$	$\mathbf{C}$
CR_sdnumunumu	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	$^{\mathrm{C}}$
CR_sdnutaunutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	$\mathbf{C}$
CR_sdnuenumu	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_e)$	$\mathbf{C}$
CR_sdnumunue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	$\mathbf{C}$
CR_sdnumunutau	$\frac{4\dot{G}_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_{\mu})$	$\mathbf{C}$
CR_sdnutaunumu	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\mu}\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	$\mathbf{C}$
CR_sdnuenutau	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^*\frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_{\tau}\gamma_{\mu}(1-\gamma_5)\nu_e)$	$^{\mathrm{C}}$
CR_sdnutaunue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2}(\bar{s}_R\gamma^{\mu}d_R)(\bar{\nu}_e\gamma_{\mu}(1-\gamma_5)\nu_{\tau})$	$\mathbf{C}$

## sdemu

WC name	Operator	Type
C9_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{\mu}\gamma_{\mu}e)$	С
C9p_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}s_R)(\bar{\mu}\gamma_{\mu}e)$	$\mathbf{C}$
C10_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{\mu}\gamma_{\mu}\gamma_5 e)$	$\mathbf{C}$
C10p_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_R\gamma^{\mu}s_R)(\bar{\mu}\gamma_{\mu}\gamma_5 e)$	$\mathbf{C}$
CS_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{\mu}e)$	$\mathbf{C}$
CSp_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}e)$	$\mathbf{C}$
CP_sdemu	$\frac{4\ddot{G}_{F}}{\sqrt{2}}V_{ts}V_{td}^{*}\frac{e^{2}}{16\pi^{2}}m_{s}(\bar{d}_{L}s_{R})(\bar{\mu}\gamma_{5}e)$	$\mathbf{C}$
CPp_sdemu	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{\mu}\gamma_5e)$	C

#### sdmue

WC name	Operator	Type
C9_sdmue	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}\mu)$	С
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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}(\bar{d}_L\gamma^{\mu}s_L)(\bar{e}\gamma_{\mu}\gamma_5\mu)$	$\mathbf{C}$
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	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e}\mu)$	$\mathbf{C}$
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	$\frac{4G_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_L s_R)(\bar{e}\gamma_5\mu)$	$\mathbf{C}$
CPp_sdmue	$\frac{4\dot{G}_F}{\sqrt{2}}V_{ts}V_{td}^*\frac{e^2}{16\pi^2}m_s(\bar{d}_Rs_L)(\bar{e}\gamma_5\mu)$	$\mathbf{C}$

### usenu

WC name	Operator	Type
CVL_suenue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{e}_L\gamma_{\mu}\nu_{eL})$	
CVR_suenue	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{eL})$	$\mathbf{C}$
CSR_suenue	$-rac{4\check{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{e}_R  u_{eL})$	$\mathbf{C}$
CSL_suenue	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{e}_R u_{eL})$	$\mathbf{C}$
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	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{\mu L})$	$\mathbf{C}$
CSR_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{e}_R  u_{\mu L})$	$\mathbf{C}$
CSL_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{e}_R u_{\mu L})$	$\mathbf{C}$
CT_suenumu	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	$\mathbf{C}$
CVL_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$

WC name	Operator	Type
CVR_suenutau	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{ au L})$	С
CSR_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{e}_R  u_{ au L})$	$\mathbf{C}$
CSL_suenutau	$-\frac{4\breve{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R u_{ au L})$	$\mathbf{C}$
CT_suenutau	$\begin{split} &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^{\mu}s_R)(\bar{e}_L\gamma_{\mu}\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Ls_R)(\bar{e}_R\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{\tau L}) \end{split}$	$\mathbf{C}$

#### usmunu

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

# 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	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{e}_L\gamma_\mu\nu_{eL})$	$^{\mathrm{C}}$
CSR_duenue	$-rac{4G_F^2}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{e}_R u_{eL})$	$^{\mathrm{C}}$
CSL_duenue	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{e}_R u_{eL})$	$^{\mathrm{C}}$
CT_duenue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu\nu}d_L)(\bar{e}_R\sigma_{\mu\nu}\nu_{eL})$	$^{\mathrm{C}}$
CVL_duenumu	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ud}(ar{u}_L\gamma^\mu d_L)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_duenumu	$-rac{4 ilde{G_F}}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_duenumu	$-rac{4 ilde{G}_F}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_duenumu	$-rac{4reve{G}_F}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{e}_R u_{\mu L})$	$\mathbf{C}$

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

# 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	$-rac{4\widetilde{G}_F^2}{\sqrt{2}}V_{ud}(ar{u}_R\gamma^\mu d_R)(ar{\mu}_L\gamma_\mu u_{eL})$	$\mathbf{C}$
CSR_dumunue	$-rac{4\widetilde{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{\mu}_R u_{eL})$	$\mathbf{C}$
CSL_dumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\mu}_R\nu_{eL})$	$\mathbf{C}$
CT_dumunue	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu\nu}d_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{eL})$	$\mathbf{C}$
CVL_dumunumu	$-rac{4\check{G_F}}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu u_{\mu L})$	$\mathbf{C}$
CVR_dumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	$\mathbf{C}$
CSR_dumunumu	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{\mu}_R\nu_{\mu L})$	$\mathbf{C}$
CSL_dumunumu	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\mu}_R u_{\mu L})$	$\mathbf{C}$
CT_dumunumu	$-rac{4\check{G}_F^2}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu u}d_L)(\bar{\mu}_R\sigma_{\mu u} u_{\mu L})$	$\mathbf{C}$
CVL_dumunutau	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu u_{ au L})$	$\mathbf{C}$
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	$-rac{4\check{G}_F^c}{\sqrt{2}}V_{ud}(\bar{u}_Ld_R)(\bar{\mu}_R u_{ au L})$	$\mathbf{C}$
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	$-rac{4G_F^{\prime\prime}}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{\mu}_R\sigma_{\mu u} u_{ au L})$	$\mathbf{C}$

# dF=0

WC name	Operator	Type
CG	$\frac{4G_F}{\sqrt{2}}f^{ABC}G^{A u}_{\mu}G^{B ho}_{ u}G^{C\mu}_{ ho}$	R
CGtilde	$\frac{4G_F}{\sqrt{2}}f^{ABC}\widetilde{G}^{A\nu}_{\mu}G^{B\rho}_{\nu}G^{C\mu}_{\rho}$	${ m R}$
C7_uu	$\frac{4G_F}{\sqrt{2}}\frac{e}{16\pi^2}m_u\bar{u}_L\sigma^{\mu\nu}u_RF_{\mu\nu}$	$\mathbf{C}$
C7_dd	$\frac{4G_F}{\sqrt{2}}\frac{e}{16\pi^2}m_dar{d}_L\sigma^{\mu u}d_RF_{\mu u}$	$^{\mathrm{C}}$
C7_ss	$rac{4G_F}{\sqrt{2}}rac{e}{16\pi^2}m_sar{s}_L\sigma^{\mu u}s_RF_{\mu u}$	$^{\mathrm{C}}$
C7_ee	$rac{4G_F}{\sqrt{2}}rac{e}{16\pi^2}m_ear{e}_L\sigma^{\mu u}e_RF_{\mu u}$	$^{\mathrm{C}}$
C7_mumu	$ \frac{\frac{4G_F}{\sqrt{2}}}{\frac{e}{16\pi^2}} \frac{e}{16\pi^2} m_d \bar{d}_L \sigma^{\mu\nu} d_R F_{\mu\nu} \\ \frac{4G_F}{\sqrt{2}} \frac{e}{16\pi^2} m_s \bar{s}_L \sigma^{\mu\nu} s_R F_{\mu\nu} \\ \frac{4G_F}{\sqrt{2}} \frac{e}{16\pi^2} m_e \bar{e}_L \sigma^{\mu\nu} e_R F_{\mu\nu} \\ \frac{4G_F}{\sqrt{2}} \frac{e}{16\pi^2} m_\mu \bar{\mu}_L \sigma^{\mu\nu} \mu_R F_{\mu\nu} $	$\mathbf{C}$

WC name	Operator	Type
C8_uu	$rac{4G_F}{\sqrt{2}} rac{g_s}{16\pi^2} m_u ar{u}_L \sigma^{\mu u} T^A u_R G^A_{\mu u}$	C
_ C8_dd	$\frac{4G_F}{f} \frac{g_s}{g_s} \frac{g_s}{2} m_d \bar{d}_L \sigma^{\mu\nu} T^A d_R G_{\cdots}^A$	$^{\mathrm{C}}$
C8_ss	$\frac{4\tilde{G}_{F}^{F}}{\sqrt{2}} \frac{g_{s}}{16\pi^{2}} m_{d} \bar{d}_{L} \sigma^{\mu\nu} T^{A} d_{R} G_{\mu\nu}^{A}$ $\frac{4G_{F}}{\sqrt{2}} \frac{g_{s}}{16\pi^{2}} m_{s} \bar{s}_{L} \sigma^{\mu\nu} T^{A} s_{R} G_{\mu\nu}^{A}$	$^{\mathrm{c}}$
CTRR_eeuu	$\frac{\sqrt{2}}{\sqrt{2}} \frac{16\pi^2}{(\bar{e}_L \sigma^{\mu\nu} e_R)} (\bar{u}_L \sigma_{\mu\nu} u_R)$	$^{\mathrm{c}}$
CTRR_mumuuu	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{u}_L\sigma_{\mu\nu}u_R)$	$^{ m C}$
CTRR_eedd	$\frac{\sqrt{2}}{4G_F}(\bar{e}_I \sigma^{\mu\nu} e_B)(\bar{d}_I \sigma_{\mu\nu} d_B)$	$^{ m C}$
CTRR_eess	$\frac{\sqrt{2}}{4G_F}(\bar{e}_I\sigma^{\mu\nu}e_R)(\bar{s}_I\sigma_{\mu\nu}s_R)$	$^{ m C}$
CTRR_mumudd	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{s}_L\sigma_{\mu\nu}s_R)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{\mu}_L\sigma^{\mu\nu}\mu_R)(\bar{d}_L\sigma_{\mu\nu}d_R)}$	$^{\mathrm{c}}$
CTRR_mumuss	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}s_R)$	$^{\mathrm{C}}$
CS1RR_uuuu	$rac{4G_F}{\sqrt{2}}(ar{u}_L u_R)(ar{u}_L u_R)$	$^{\mathrm{c}}$
CS8RR_uuuu	$rac{4G_F}{\sqrt{2}}(ar{u}_LT^Au_R)(ar{u}_LT^Au_R)$	$^{\mathrm{C}}$
CS1RR_uudd	$rac{\sqrt{2}}{4rac{G_F}{\sqrt{2}}}(ar{u}_L u_R)(ar{d}_L d_R)$	$^{\mathrm{c}}$
CS1RR_uuss	$\frac{\sqrt{2}}{4G_F}(\bar{u}_L u_R)(\bar{s}_L s_R)$	$^{\mathrm{c}}$
CS8RR_uudd	$rac{4G_F}{\sqrt{2}}(ar{u}_L T^A u_R)(ar{d}_L T^A d_R)$	$^{ m C}$
CS8RR_uuss	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{u}_L T^A u_R)(\bar{s}_L T^A s_R)$	C
CS1RR_dddd	$\frac{\sqrt{2}}{4G_F}(\bar{d}_I d_P)(\bar{d}_I d_P)$	$\stackrel{\circ}{\mathrm{C}}$
CS1RR_ddss	$rac{4oldsymbol{G}_{F}^{2}}{\sqrt{2}}(ar{d}_{L}d_{R})(ar{d}_{L}d_{R}) \ rac{4G_{F}}{\sqrt{2}}(ar{d}_{L}d_{R})(ar{s}_{L}s_{R}) \ rac{4G_{F}}{\sqrt{2}}(ar{d}_{L}s_{R})(ar{s}_{L}d_{R})$	C
CS1RR_dssd	$\frac{\sqrt{2}}{4G_F}(\bar{d}_I s_P)(\bar{s}_I d_P)$	C
CS1RR_ssss	$rac{4G_F}{\sqrt{2}}(ar{s}_L s_R)(ar{s}_L s_R)$	C
CS8RR_dddd	$rac{\sqrt{2}}{4rac{G_F}{\sqrt{2}}}(ar{d}_LT^Ad_R)(ar{d}_LT^Ad_R)$	C
CS8RR_ddss	$rac{4G_F}{\sqrt{2}}(ar{d}_L T^A d_R)(ar{s}_L T^A s_R)$	$\dot{ ext{C}}$
CS8RR_dssd	$\frac{\sqrt{2}}{\sqrt{2}}(ar{d}_L T^A s_R)(ar{s}_L T^A d_R)$	$^{\mathrm{C}}$
CS8RR_ssss	$\frac{\sqrt{2}}{4G_F}(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R)$	$^{\mathrm{C}}$
CS1RR_uddu	$\frac{4G_F}{\sqrt{2}}(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L d_R)(\bar{d}_L u_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L s_R)(\bar{s}_L u_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L s_R)(\bar{s}_L u_R)$	C
CS1RR_ussu	$\frac{\sqrt{2}}{4G_F}(\bar{u}_L s_R)(\bar{s}_L u_R)$	$^{\mathrm{c}}$
CS8RR_uddu	$\frac{\sqrt{2}}{4G_F}(\bar{u}_L T^A d_R)(\bar{d}_L T^A u_R)$	C
CS8RR_ussu	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A d_R)(\bar{d}_L T^A u_R)}{\frac{4G_F}{\sqrt{2}}(\bar{u}_L T^A s_R)(\bar{s}_L T^A u_R)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{d}_R d_L)}{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{d}_R d_L)}$	$\dot{ ext{C}}$
CSRL_eedd	$\frac{\sqrt{2}}{4G_F}(\bar{e}_L e_R)(\bar{d}_R d_L)$	$^{\mathrm{C}}$
CSRL_eess	$\frac{\sqrt{2}}{4G_F}(\bar{e}_L e_R)(\bar{s}_R s_L)$	$^{\mathrm{C}}$
- CSRL_eeuu	$rac{4\widetilde{\zeta_F}}{\sqrt{2}}(ar{e}_L e_R)(ar{s}_R s_L) \ rac{4G_F}{\sqrt{2}}(ar{e}_L e_R)(ar{u}_R u_L)$	$^{\mathrm{C}}$
- CSRL_mumudd	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
- CSRL_mumuss	$\frac{4G_F}{\overline{G}}(\bar{\mu}_L\mu_R)(\bar{s}_Rs_L)$	$^{\mathrm{C}}$
- CSRL_mumuuu	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{s}_Rs_L) \ rac{4G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{u}_Ru_L) \ rac{2G_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{u}_Ru_L)$	$^{\mathrm{C}}$
CSRR_eedd	$\frac{\sqrt{2}}{\sqrt{2}}(\bar{e}_L e_R)(\bar{d}_L d_R)$	$^{\mathrm{C}}$
- CSRR_eeee	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{d}_L d_R)}{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{e}_L e_R)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{\mu}_L \mu_R)}{\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{s}_L s_R)}$	$\mathbf{C}$
- CSRR_eemumu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{\mu}_L \mu_R)$	$\mathbf{C}$
- CSRR_eess	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{s}_L s_R)$	$\mathbf{C}$
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WC name	Operator	Type
CSRR_eeuu	$\frac{4G_F}{\sqrt{2}}(\bar{e}_L e_R)(\bar{u}_L u_R)$	C
CSRR_emumue	$rac{4\overset{V}{G_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	$\frac{4\widetilde{G}_F}{\sqrt{2}}(\bar{\mu}_L\mu_R)(\bar{\mu}_L\mu_R)$	$\mathbf{C}$
CSRR_mumuss	$rac{4ar{G}_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{s}_Ls_R)$	$\mathbf{C}$
CSRR_mumuuu	$\frac{4\widetilde{G}_F}{\sqrt{2}}(ar{\mu}_L\mu_R)(ar{u}_Lu_R)$	$\mathbf{C}$
CV1LL_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(d_L\gamma_\mu d_L)$	R
CV1LL_uuss	$rac{4ar{G_F}}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{s}_L\gamma_\mu s_L)$	$\mathbf{R}$
CV1LR_dddd	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_ddss	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{s}_R\gamma_\mu s_R)$	$\mathbf{R}$
CV1LR_dduu	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{u}_R\gamma_\mu u_R)$	R
CV1LR_dssd	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CV1LR_ssdd	$rac{4ar{G_F}}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_ssss	$rac{4ar{G_F}}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu s_R)$	R
CV1LR_ssuu	$rac{4ar{G_F}}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{u}_R\gamma_\mu u_R)$	R
CV1LR_uddu	$\frac{4\bar{G_F}}{\sqrt{2}}(\bar{u}_L\gamma^\mu d_L)(\bar{d}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CV1LR_ussu	$rac{4ar{G_F}}{\sqrt{2}}(ar{u}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
CV1LR_uudd	$rac{4ar{G_F}}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{d}_R\gamma_\mu d_R)$	R
CV1LR_uuss	$rac{4ar{G_F}}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{s}_R\gamma_\mu s_R)$	R
CV1LR_uuuu	$\frac{4\bar{G_F}}{\sqrt{2}}(\bar{u}_L\gamma^\mu u_L)(\bar{u}_R\gamma_\mu u_R)$	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{4ar{G}_F}{\sqrt{2}}(ar{u}_R\gamma^\mu u_R)(ar{s}_R\gamma_\mu s_R)$	R
CV8LL_uudd	$\frac{4\bar{G_F}}{\sqrt{2}}(\bar{u}_L\gamma^\mu T^A u_L)(\bar{d}_L\gamma_\mu T^A d_L)$	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	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu T^A d_L)(ar{d}_R\gamma_\mu T^A d_R)$	R
CV8LR_ddss	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu T^A d_L)(ar{s}_R\gamma_\mu T^A s_R)$	R
CV8LR_dduu	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu T^A d_L)(ar{u}_R\gamma_\mu T^A u_R)$	R
CV8LR_dssd	$\frac{4G_F}{\sqrt{2}}(\bar{d}_L\gamma^\mu T^A s_L)(\bar{s}_R\gamma_\mu T^A d_R)$	$\mathbf{C}$
CV8LR_ssdd	$\frac{4G_F}{G}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	R
CV8LR_ssss	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^As_R)}{\frac{4G_F}{\sqrt{2}}(\bar{s}_L\gamma^{\mu}T^As_L)(\bar{u}_R\gamma_{\mu}T^Au_R)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Ad_L)(\bar{d}_R\gamma_{\mu}T^Au_R)}{\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Ad_L)(\bar{d}_R\gamma_{\mu}T^Au_R)}$	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	$\frac{4\dot{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu T^A d_L)(\bar{d}_R\gamma_\mu T^A u_R)$	$\mathbf{C}$
CV8LR_ussu	$\frac{4\bar{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu T^A s_L)(\bar{s}_R\gamma_\mu T^A u_R)$	$^{\mathrm{C}}$
CV8LR_uudd	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_R\gamma_{\mu}T^Ad_R)$	R
CV8LR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{s}_R\gamma_{\mu}T^As_R)$	R
CV8LR_uuuu	$\frac{4\bar{G}_F}{\sqrt{2}}(\bar{u}_L\gamma^\mu T^A u_L)(\bar{u}_R\gamma_\mu T^A u_R)$	R
CV8RR_uudd	$\begin{array}{c} \frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^As_L)(\bar{s}_R\gamma_{\mu}T^Au_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{d}_R\gamma_{\mu}T^Ad_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{s}_R\gamma_{\mu}T^As_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{u}_R\gamma_{\mu}T^Au_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_L\gamma^{\mu}T^Au_L)(\bar{u}_R\gamma_{\mu}T^Au_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{u}_R\gamma^{\mu}T^Au_R)(\bar{d}_R\gamma_{\mu}T^Ad_R) \end{array}$	R

WC name	Operator	Type
CV8RR_uuss	$\frac{4G_F}{\sqrt{2}}(\bar{u}_R\gamma^{\mu}T^Au_R)(\bar{s}_R\gamma_{\mu}T^As_R)$	R
CVLL_dddd	$rac{4 \check{G_F}}{\sqrt{2}} (ar{d}_L \gamma^\mu d_L) (ar{d}_L \gamma_\mu d_L)$	R
CVLL_ddss	$rac{4reve{G_F}}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{s}_L\gamma_\mu s_L)$	R
CVLL_dssd	$\frac{4\check{G}_F}{\sqrt{2}}(ar{d}_L\gamma^\mu s_L)(ar{s}_L\gamma_\mu d_L)$	R
CVLL_eedd	$rac{4 \check{G}_F}{\sqrt{2}} (ar{e}_L \gamma^\mu e_L) (ar{d}_L \gamma_\mu d_L)$	R
CVLL_eeee	$rac{4\check{G}_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{e}_L\gamma_\mu e_L)$	R
CVLL_eemumu	$rac{4reve{G_F}}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_eess	$rac{4 G_F}{\sqrt{2}} (ar{e}_L \gamma^\mu e_L) (ar{s}_L \gamma_\mu s_L)$	R
CVLL_eeuu	$rac{4 \check{G_F}}{\sqrt{2}} (ar{e}_L \gamma^\mu e_L) (ar{u}_L \gamma_\mu u_L)$	R
$CVLL_{mumudd}$	$rac{4 \check{G}_F}{\sqrt{2}} (ar{\mu}_L \gamma^\mu \mu_L) (ar{d}_L \gamma_\mu d_L)$	R
${\tt CVLL\_mumumumu}$	$rac{4 \check{G_F}}{\sqrt{2}} (ar{\mu}_L \gamma^\mu \mu_L) (ar{\mu}_L \gamma_\mu \mu_L)$	R
CVLL_mumuss	$rac{4ar{G_F}}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{s}_L\gamma_\mu s_L)$	R
CVLL_mumuuu	$rac{4ar{G_F}}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{u}_L\gamma_\mu u_L)$	R
CVLL_ssss	$rac{4ar{G_F}}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{s}_L\gamma_\mu s_L)$	R
CVLL_uuuu	$rac{4ar{G}_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{u}_L\gamma_\mu u_L)$	R
CVLR_ddee	$rac{4 G_F}{\sqrt{2}} (ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu e_R)$	R
CVLR_ddmumu	$rac{4G_F}{\sqrt{2}}(ar{d}_L\gamma^\mu d_L)(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_eedd	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{d}_R\gamma_\mu d_R)$	R
CVLR_eeee	$rac{4 ar{G_F}}{\sqrt{2}} (ar{e}_L \gamma^\mu e_L) (ar{e}_R \gamma_\mu e_R)$	R
CVLR_eemumu	$rac{4 \dot{G}_F}{\sqrt{2}} (ar{e}_L \gamma^\mu e_L) (ar{\mu}_R \gamma_\mu \mu_R)$	R
CVLR_eess	$rac{4\dot{G}_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{s}_R\gamma_\mu s_R)$	R
CVLR_eeuu	$rac{4\dot{G}_F}{\sqrt{2}}(ar{e}_L\gamma^\mu e_L)(ar{u}_R\gamma_\mu u_R)$	R
CVLR_emumue	$rac{4G_F}{\sqrt{2}}(ar{e}_L\gamma^\mu\mu_L)(ar{\mu}_R\gamma_\mu e_R)$	$\mathbf{C}$
CVLR_mumudd	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{d}_R\gamma_\mu d_R)$	${ m R}$
CVLR_mumuee	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{e}_R\gamma_\mu e_R)$	${ m R}$
CVLR_mumumumu	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{\mu}_R\gamma_\mu\mu_R)$	${ m R}$
CVLR_mumuss	$rac{4G_F}{\sqrt{2}}(ar{\mu}_L\gamma^\mu\mu_L)(ar{s}_R\gamma_\mu s_R)$	${ m R}$
CVLR_mumuuu	$rac{4 G_F}{\sqrt{2}} (ar{\mu}_L \gamma^\mu \mu_L) (ar{u}_R \gamma_\mu u_R)$	R
CVLR_ssee	$rac{4 G_F}{\sqrt{2}} (ar{s}_L \gamma^\mu s_L) (ar{e}_R \gamma_\mu e_R)$	R
CVLR_ssmumu	$rac{4G_F}{\sqrt{2}}(ar{s}_L\gamma^\mu s_L)(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_uuee	$rac{4ar{G}_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{e}_R\gamma_\mu e_R)$	R
CVLR_uumumu	$rac{\sqrt{2}}{\sqrt{2}}(s_L\gamma^F s_L)(\mu_R\gamma_\mu\mu_R) \ rac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{e}_R\gamma_\mu e_R) \ rac{4G_F}{\sqrt{2}}(ar{u}_L\gamma^\mu u_L)(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVRR_dddd	$\frac{4G_F}{\sqrt{2}}(d_R\gamma^\mu d_R)(d_R\gamma_\mu d_R)$	R
CVRR_ddss	$\begin{array}{l} \frac{4G_F^2}{\sqrt{2}}(\bar{d}_R\gamma^{\mu}d_R)(\bar{s}_R\gamma_{\mu}s_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{d}_R\gamma^{\mu}s_R)(\bar{s}_R\gamma_{\mu}d_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^{\mu}e_R)(\bar{d}_R\gamma_{\mu}d_R) \\ \frac{4G_F}{\sqrt{2}}(\bar{e}_R\gamma^{\mu}e_R)(\bar{e}_R\gamma_{\mu}e_R) \end{array}$	R
CVRR_dssd	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu d_R)$	R
CVRR_eedd	$rac{4ar{G_F}}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{d}_R\gamma_\mu d_R)$	R
CVRR_eeee	$\frac{4\tilde{G}_{F}}{\tilde{G}_{P}}(\bar{e}_{P}\gamma^{\mu}e_{P})(\bar{e}_{P}\gamma_{\mu}e_{P})$	${ m R}$

WC name	Operator	Type
CVRR_eemumu	$rac{4G_F}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{\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	$rac{4G_F^c}{\sqrt{2}}(ar{e}_R\gamma^\mu e_R)(ar{u}_R\gamma_\mu u_R)$	R
CVRR_mumudd	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(d_R\gamma_\mu d_R)$	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	$rac{4G_F}{\sqrt{2}}(ar{\mu}_R\gamma^\mu\mu_R)(ar{s}_R\gamma_\mu s_R)$	R
CVRR_mumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{u}_R\gamma_\mu u_R)$	R
CVRR_ssss	$\frac{4\overset{\sim}{G_F}}{\sqrt{2}}(\bar{s}_R\gamma^{\mu}s_R)(\bar{s}_R\gamma_{\mu}s_R) \\ \frac{4\overset{\sim}{G_F}}{\sqrt{2}}(\bar{u}_R\gamma^{\mu}u_R)(\bar{u}_R\gamma_{\mu}u_R)$	R
CVRR_uuuu	$\frac{4G_F}{\sqrt{2}}(\bar{u}_R\gamma^\mu u_R)(\bar{u}_R\gamma_\mu u_R)$	${ m R}$

## ${\tt mue}$

WC name	Operator	Type
Cgamma_mue	$ar{e}_L \sigma^{\mu u} \mu_R  F_{\mu u}$	С
Cgamma_emu	$ar{\mu}_L \sigma^{\mu  u} e_R  F_{\mu  u}$	C
CVLL_eemue	$(ar{e}_L \gamma^\mu e_L) (ar{e}_L \gamma_\mu \mu_L)$	$\mathbf{C}$
CVLL_muemumu	$(ar{e}_L\gamma^\mu\mu_L)(ar{\mu}_L\gamma_\mu\mu_L)$	$\mathbf{C}$
CVLL_mueuu	$(ar{e}_L \gamma^\mu \mu_L) (ar{u}_L \gamma_\mu u_L)$	$\mathbf{C}$
CVLL_muedd	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_L \gamma_\mu d_L)$	C
CVLL_muess	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
CVRR_eemue	$(ar{e}_R\gamma^\mu e_R)(ar{e}_R\gamma_\mu\mu_R)$	С
CVRR_muemumu	$(ar{e}_R\gamma^\mu\mu_R)(ar{\mu}_R\gamma_\mu\mu_R)$	С
CVRR_mueuu	$(ar{e}_R\gamma^\mu\mu_R)(ar{u}_R\gamma_\mu u_R)$	$\mathbf{C}$
CVRR_muedd	$(ar{e}_R \gamma^\mu \mu_R) (ar{d}_R \gamma_\mu d_R)$	$\mathbf{C}$
CVRR_muess	$(ar{e}_R \gamma^\mu \mu_R) (ar{s}_R \gamma_\mu s_R)$	$\mathbf{C}$
CVLR_eemue	$(ar{e}_L \gamma^\mu e_L) (ar{e}_R \gamma_\mu \mu_R)$	$\mathbf{C}$
CVLR_mueee	$(ar{e}_L \gamma^\mu \mu_L) (ar{e}_R \gamma_\mu e_R)$	$\mathbf{C}$
CVLR_muemumu	$(\bar{e}_L\gamma^\mu\mu_L)(\bar{\mu}_R\gamma_\mu\mu_R)$	$\mathbf{C}$
CVLR_mumumue	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu \mu_R)$	$\mathbf{C}$
CVLR_mueuu	$(ar{e}_L\gamma^\mu\mu_L)(ar{u}_R\gamma_\mu u_R)$	$\mathbf{C}$
CVLR_muedd	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu d_R)$	$\mathbf{C}$
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	$(ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu \mu_R)$	$\mathbf{C}$
CVLR_ssmue	$(ar{s}_L \gamma^\mu s_L) (ar{e}_R \gamma_\mu \mu_R)$	$\mathbf{C}$
CSRL_mueuu	$(ar{e}_L\mu_R)(ar{u}_Ru_L)$	$\mathbf{C}$
CSRL_emuuu	$(ar{\mu}_L e_R)(ar{u}_R u_L)$	C
CSRL_muedd	$(ar{e}_L\mu_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
CSRL_muess	$(ar{e}_L\mu_R)(ar{s}_Rs_L)$	C
CSRL_emudd	$(ar{\mu}_L e_R)(ar{d}_R d_L)$	C
CSRL_emuss	$(ar{\mu}_L e_R)(ar{s}_R s_L)$	$\mathbf{C}$

WC name	Operator	Type
CSRR_eemue	$(\bar{e}_L e_R)(\bar{e}_L \mu_R)$	C
CSRR_eeemu	$(ar{e}_L e_R)(ar{\mu}_L e_R)$	$^{\mathrm{C}}$
CSRR_muemumu	$(ar{e}_L\mu_R)(ar{\mu}_L\mu_R)$	$^{\mathrm{C}}$
CSRR_emumumu	$(ar{\mu}_L e_R)(ar{\mu}_L \mu_R)$	$^{\mathrm{C}}$
CSRR_mueuu	$(ar{e}_L\mu_R)(ar{u}_Lu_R)$	$^{\mathrm{C}}$
CSRR_emuuu	$(ar{\mu}_L e_R)(ar{u}_L u_R)$	$^{\mathrm{C}}$
CTRR_mueuu	$(\bar{e}_L \sigma^{\mu u} \mu_R) (\bar{u}_L \sigma_{\mu u} u_R)$	$^{\mathrm{C}}$
CTRR_emuuu	$(\bar{\mu}_L \sigma^{\mu  u} e_R)(\bar{u}_L \sigma_{\mu  u} u_R)$	$^{\mathrm{C}}$
CSRR_muedd	$(ar{e}_L\mu_R)(ar{d}_Ld_R)$	$^{\mathrm{C}}$
CSRR_muess	$(ar{e}_L\mu_R)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
CSRR_emudd	$(ar{\mu}_L e_R)(ar{d}_L d_R)$	$\mathbf{C}$
CSRR_emuss	$(ar{\mu}_L e_R)(ar{s}_L s_R)$	$^{\mathrm{C}}$
CTRR_muedd	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	$\mathbf{C}$
CTRR_muess	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}s_R)$	$\mathbf{C}$
CTRR_emudd	$(ar{\mu}_L \sigma^{\mu  u} e_R) (ar{d}_L \sigma_{\mu  u} d_R)$	$\mathbf{C}$
CTRR_emuss	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	C

# nunumue

WC name	Operator	Type
CVLL_nuenuemue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_L\gamma_{\mu}\mu_L)$	C
CVLL_numunueemu	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
CVLL_numunuemue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
CVLL_numunumumue	$(\bar{ u}_{\mu L} \gamma^{\mu}  u_{\mu L}) (\bar{e}_L \gamma_{\mu} \mu_L)$	$^{\mathrm{C}}$
CVLL_nutaunueemu	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{\mu}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
CVLL_nutaunuemue	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
CVLL_nutaunumuem	$\mathrm{u}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
CVLL_nutaunumumu	e $(ar{ u}_{\mu L} \gamma^{\mu}  u_{ au L}) (ar{e}_L \gamma_{\mu} \mu_L)$	$^{\mathrm{C}}$
CVLL_nutaunutaum	$u  otin ar{ u}_{ au L} \gamma^{\mu}  u_{ au L}) (ar{e}_{L} \gamma_{\mu} \mu_{L})$	$^{\mathrm{C}}$
CVLR_nuenuemue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_R\gamma_{\mu}\mu_R)$	$^{\mathrm{C}}$
CVLR_numunueemu	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{\mu}_R\gamma_{\mu}e_R)$	$^{\mathrm{C}}$
CVLR_numunuemue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_R\gamma_{\mu}\mu_R)$	$^{\mathrm{C}}$
CVLR_numunumumue	$(\bar{ u}_{\mu L} \gamma^{\mu}  u_{\mu L}) (\bar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$
CVLR_nutaunueemu	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{\mu}_R\gamma_{\mu}e_R)$	$\mathbf{C}$
CVLR_nutaunuemue	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\tau L})(\bar{e}_R\gamma_{\mu}\mu_R)$	$^{\mathrm{C}}$
CVLR_nutaunumuem	$\mathrm{u}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
CVLR_nutaunumumu	e $(ar{ u}_{\mu L} \gamma^{\mu}  u_{ au L}) (ar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$
CVLR_nutaunutaum	$u  otin ar{ u}_{ au L} \gamma^{\mu}  u_{ au L}) (ar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$

# ${\tt ffnunu}$

WC name	Operator	Type
CVLL_nuenuedd	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{d}_L\gamma_{\mu}d_L)$	R
CVLL_nuenueee	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{e}_L\gamma_{\mu}e_L)$	${ m R}$
CVLL_nuenuemumu	$rac{4\ddot{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_nuenuess	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{s}_L\gamma_\mu s_L)$	R
CVLL_nuenueuu	$\frac{4G_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{u}_L\gamma_{\mu}u_L)$	R
CVLL_nuenumudd	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{d}_L\gamma_\mu d_L)$	$\mathbf{C}$
CVLL_nuenumuee	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{e}_L\gamma_\mu e_L)$	$\mathbf{C}$
CVLL_nuenumumumu	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{\mu}_L\gamma_\mu\mu_L)$	$^{\mathrm{C}}$
CVLL_nuenumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
CVLL_nuenumuuu	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{\mu L})(ar{u}_L\gamma_\mu u_L)$	$\mathbf{C}$
CVLL_nuenutaudd	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{d}_L\gamma_\mu d_L)$	$^{\mathrm{C}}$
CVLL_nuenutauee	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{e}_L\gamma_\mu e_L)$	$^{\mathrm{C}}$
CVLL_nuenutaumumu	$-rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{\mu}_L\gamma_\mu\mu_L)$	$^{\mathrm{C}}$
CVLL_nuenutauss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{s}_L\gamma_\mu s_L)$	$^{\mathrm{C}}$
CVLL_nuenutauuu	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{u}_L\gamma_\mu u_L)$	$\mathbf{C}$
${\tt CVLL\_numunumudd}$	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{d}_L\gamma_\mu d_L)$	R
CVLL_numunumuee	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{e}_L\gamma_\mu e_L)$	R
CVLL_numunumumumu	$-\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_numunumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{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
${\tt CVLL\_numunutaudd}$	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{d}_L\gamma_\mu d_L)$	$\mathbf{C}$
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	$u^{4G_F\over\sqrt{2}}(ar u_{\mu L}\gamma^\mu u_{ au L})(ar\mu_L\gamma_\mu\mu_L)$	$\mathbf{C}$
CVLL_numunutauss	$\frac{4\ddot{G_F}}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{s}_L\gamma_{\mu}s_L)$	$\mathbf{C}$
CVLL_numunutauuu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\tau L})(\bar{u}_L\gamma_{\mu}u_L)$	$\mathbf{C}$
CVLL_nutaunutaudd	$-rac{4\check{G}_F^{F}}{\sqrt{2}}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{d}_L\gamma_{\mu}d_L)$	R
CVLL_nutaunutauee	$+rac{4 ilde{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{e}_L\gamma_\mu e_L)$	R
	$\frac{d\tilde{G}_F}{\sqrt{2}}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{\mu}_L\gamma_\mu\mu_L)$	R
CVLL_nutaunutauss	$-rac{4\widetilde{G_F}}{\sqrt{2}}(ar{ u}_{ au L}\gamma^{\mu} u_{ au L})(ar{s}_L\gamma_{\mu}s_L)$	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_nuenuedd	$\frac{4\ddot{G}_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{d}_R\gamma_{\mu}d_R)$	R
CVLR_nuenueee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_R\gamma_{\mu}e_R)$	R
CVLR_nuenuemumu	$rac{4ar{G}_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{eL})(ar{\mu}_R\gamma_\mu\mu_R)$	R
CVLR_nuenuess	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{s}_R\gamma_{\mu}s_R)$	R
CVLR_nuenueuu	$\frac{4\breve{G}_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{u}_R\gamma_{\mu}u_R)$	R
CVLR_nuenumudd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{\mu L})(\bar{d}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
CVLR_nuenumuee	$\frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{d}_{R}\gamma_{\mu}d_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_{R}\gamma_{\mu}e_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{e}_{R}\gamma_{\mu}e_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{s}_{R}\gamma_{\mu}\mu_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{s}_{R}\gamma_{\mu}u_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{u}_{R}\gamma_{\mu}u_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{d}_{R}\gamma_{\mu}d_{R}) \\ \frac{4G_{F}}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{e}_{R}\gamma_{\mu}e_{R})$	$\mathbf{C}$
	v =-	

WC name	Operator	Type
CVLR_nuenumumumu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{\mu}_R\gamma_{\mu}\mu_R)$	С
CVLR_nuenumuss	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{\nu}_{eL} \gamma^{\mu} \nu_{\mu L}) (\bar{s}_R \gamma_{\mu} s_R)$	$\mathbf{C}$
CVLR_nuenumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{eL}\gamma^{\mu}\nu_{\mu L})(\bar{u}_R\gamma_{\mu}u_R)$	$\mathbf{C}$
CVLR_nuenutaudd	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{ u}_{eL}\gamma^\mu u_{\tau L})(\bar{d}_R\gamma_\mu d_R)$	$\mathbf{C}$
CVLR_nuenutauee	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{e}_R\gamma_\mu e_R)$	$\mathbf{C}$
CVLR_nuenutaumumu	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{\mu}_R\gamma_\mu\mu_R)$	$\mathbf{C}$
CVLR_nuenutauss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{s}_R\gamma_\mu s_R)$	$\mathbf{C}$
CVLR_nuenutauuu	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{eL}\gamma^\mu u_{ au L})(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
${\tt CVLR\_numunumudd}$	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{d}_R\gamma_\mu d_R)$	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	$4\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{\mu}_R\gamma_\mu\mu_R)$	${ m R}$
CVLR_numunumuss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{\mu L})(ar{s}_R\gamma_\mu s_R)$	${ m R}$
CVLR_numunumuuu	$\frac{4G_F}{\sqrt{2}}(\bar{\nu}_{\mu L}\gamma^{\mu}\nu_{\mu L})(\bar{u}_R\gamma_{\mu}u_R)$	${ m R}$
${\tt CVLR\_numunutaudd}$	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{d}_R\gamma_{\mu}d_R)$	$^{\mathrm{C}}$
CVLR_numunutauee	$\frac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{e}_R\gamma_\mu e_R)$	$^{\mathrm{C}}$
CVLR_numunutaumum	$\sin^{4G_F}_{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{\mu}_R\gamma_\mu\mu_R)$	$^{\mathrm{C}}$
CVLR_numunutauss	$rac{4G_F}{\sqrt{2}}(ar{ u}_{\mu L}\gamma^\mu u_{ au L})(ar{s}_R\gamma_\mu s_R)$	$^{\mathrm{C}}$
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_nutaunutaudo	$4 \frac{4G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu  u_{ au L}) (ar{d}_R \gamma_\mu d_R)$	${ m R}$
CVLR_nutaunutaue	$+ rac{4G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu  u_{ au L}) (ar{e}_R \gamma_\mu e_R)$	${ m R}$
CVLR_nutaunutaumu	$m_{\sqrt{2}}^{4G_F}(ar{ u}_{ au L}\gamma^\mu u_{ au L})(ar{\mu}_R\gamma_\mu\mu_R)$	$\mathbf{R}$
CVLR_nutaunutauss	$s  rac{4 G_F}{\sqrt{2}} (ar{ u}_{ au L} \gamma^\mu  u_{ au L}) (ar{s}_R \gamma_\mu s_R)$	$\mathbf{R}$
CVLR_nutaunutauuu	$1 \frac{4G_F}{\sqrt{2}} (\bar{\nu}_{\tau L} \gamma^{\mu} \nu_{\tau L}) (\bar{u}_R \gamma_{\mu} u_R)$	R