Basis Bern (EFT WET-3)

Sectors

The effective Lagrangian is defined as

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

udenu

WC name	Operator	Type
1udee	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^\mu d)(\bar{e}\gamma_\mu\nu_e)$	C
5udee	$\frac{4\ddot{Q}_F^2}{\sqrt{2}}(\bar{u}P_Rd)(\bar{e}\nu_e)$	\mathbf{C}
1pudee	$\frac{4\overset{\circ}{G_F}}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{e}\gamma_\mu\nu_e)$	\mathbf{C}
5pudee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Ld)(\bar{e}\nu_e)$	\mathbf{C}
7pudee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{e}\sigma_{\mu\nu}\nu_e)$	\mathbf{C}
1udemu	$rac{4 ilde{G}_F}{\sqrt{2}} (ar{u} P_R \gamma^\mu d) (ar{e} \gamma_\mu u_\mu)$	\mathbf{C}
5udemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Rd)(\bar{e}\nu_\mu)$	\mathbf{C}
1pudemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{e}\gamma_\mu u_\mu)$	\mathbf{C}
5pudemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Ld)(\bar{e}\nu_\mu)$	\mathbf{C}
7pudemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{e}\sigma_{\mu\nu}\nu_{\mu})$	\mathbf{C}
1udetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_R\gamma^\mu d)(\bar{e}\gamma_\mu u_ au)$	\mathbf{C}
5udetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Rd)(\bar{e}\nu_{\tau})$	\mathbf{C}
1pudetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{e}\gamma_\mu u_ au)$	\mathbf{C}
5pudetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Ld)(\bar{e}\nu_{\tau})$	\mathbf{C}
7pudetau	$\frac{4\overleftarrow{Q_F}}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{e}\sigma_{\mu\nu}\nu_{\tau})$	C

udmunu

WC name	Operator	Type
1udmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^\mu d)(\bar{\mu}\gamma_\mu\nu_e)$	C
5udmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_Rd)(\bar{\mu}\nu_e)$	\mathbf{C}
1pudmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{\mu}\gamma_\mu\nu_e)$	\mathbf{C}
5pudmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_Ld)(\bar{\mu}\nu_e)$	\mathbf{C}
7pudmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{\mu}\sigma_{\mu\nu}\nu_e)$	\mathbf{C}
1udmumu	$\frac{\frac{4G_F}{\sqrt{2}}}{\sqrt{2}}(\bar{u}P_R\gamma^\mu d)(\bar{\mu}\gamma_\mu\nu_\mu)$ $\frac{4G_F}{\sqrt{2}}(\bar{u}P_R d)(\bar{\mu}\nu_\mu)$	\mathbf{C}
5udmumu	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_Rd)(\bar{\mu}\nu_{\mu})$	\mathbf{C}
1pudmumu	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{\mu}\gamma_\mu\nu_\mu)$	\mathbf{C}
5pudmumu	$\frac{4\widetilde{G}_F^2}{\sqrt{2}}(\bar{u}P_L\gamma^\mu d)(\bar{\mu}\gamma_\mu\nu_\mu)$ $\frac{4G_F}{\sqrt{2}}(\bar{u}P_L d)(\bar{\mu}\nu_\mu)$	С

WC name	Operator	Type
7pudmumu	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{\mu}\sigma_{\mu\nu}\nu_{\mu})$	C
1udmutau	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}d)(\bar{\mu}\sigma_{\mu\nu}\nu_{\mu})}{\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^{\mu}d)(\bar{\mu}\gamma_{\mu}\nu_{\tau})}$	\mathbf{C}
5udmutau	$\frac{\frac{4G_F^2}{\sqrt{2}}(\bar{u}P_Rd)(\bar{\mu}\nu_{\tau})}{\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\gamma^{\mu}d)(\bar{\mu}\gamma_{\mu}\nu_{\tau})}$	$^{\mathrm{C}}$
1pudmutau	$\frac{4 \tilde{G}_F}{\sqrt{2}} (\bar{u} P_L \gamma^\mu d) (\bar{\mu} \gamma_\mu \nu_\tau)$	$^{\mathrm{C}}$
5pudmutau	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_Ld)(\bar{\mu} u_{ au})$	$^{\mathrm{C}}$
7pudmutau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L d)(\bar{\mu}\nu_{\tau})$ $\frac{4G_F}{\sqrt{2}}(\bar{u}P_L \sigma^{\mu\nu} d)(\bar{\mu}\sigma_{\mu\nu}\nu_{\tau})$	$^{\mathrm{C}}$

sdsd

WC name	Operator	Type
1dsds	$\frac{4G_F}{\sqrt{2}}(\bar{d}\gamma_\mu P_L s)(\bar{d}\gamma^\mu P_L s)$	\overline{C}
5dsds	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}\gamma_{\mu}P_Ls)(\bar{d}\gamma^{\mu}P_Ls)}{\frac{4G_F}{\sqrt{2}}(\bar{d}_{\alpha}P_Ls_{\beta})(\bar{d}_{\beta}P_Rs_{\alpha})}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{d}P_Ls)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{d}P_Ls)}$	$^{\mathrm{C}}$
2dsds	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{d}P_Ls)$	\mathbf{C}
1pdsds	$\frac{4G_F}{\overline{c}}(d\gamma_{\cdot \cdot}P_{PS})(d\gamma^{\mu}P_{PS})$	\mathbf{C}
3dsds	$rac{\sqrt{2}}{\sqrt{2}}(ar{d}_{lpha}P_{L}s_{eta})(ar{d}_{eta}P_{L}s_{lpha})$	\mathbf{C}
2pdsds	$\frac{4G_F}{\sqrt{2}}(dP_Rs)(dP_Rs)$	C
4dsds	$\frac{4\bar{G_F}}{\sqrt{2}}(\bar{d}P_Ls)(\bar{d}P_Rs)$	\mathbf{C}
3pdsds	$rac{4G_F}{\sqrt{2}}(ar{d}P_Ls)(ar{d}P_Rs) \ rac{4G_F}{\sqrt{2}}(ar{d}_lpha P_Rs_eta)(ar{d}_eta P_Rs_lpha)$	$^{\mathrm{C}}$

usenu

WC name	Operator	Type
1usee	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^{\mu}s)(\bar{e}\gamma_{\mu}\nu_e)$	C
5usee	$\frac{4\tilde{G}_F^2}{\sqrt{2}}(\bar{u}P_Rs)(\bar{e}\nu_e)$	\mathbf{C}
1pusee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\gamma^{\mu}s)(\bar{e}\gamma_{\mu}\nu_e)$	\mathbf{C}
5pusee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Ls)(\bar{e}\nu_e)$	\mathbf{C}
7pusee	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}\nu_e)$	\mathbf{C}
1usemu	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^{\mu}s)(\bar{e}\gamma_{\mu}\nu_{\mu})$	\mathbf{C}
5usemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_Rs)(\bar{e}\nu_\mu)$	\mathbf{C}
1pusemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_L\gamma^{\mu}s)(\bar{e}\gamma_{\mu}\nu_{\mu})$	\mathbf{C}
5pusemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_Ls)(\bar{e}\nu_\mu)$	\mathbf{C}
7pusemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}\nu_\mu)$	\mathbf{C}
1usetau	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{u}P_R\gamma^\mu s)(\bar{e}\gamma_\mu \nu_ au)$	\mathbf{C}
5usetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_Rs)(\bar{e}\nu_{ au})$	\mathbf{C}
1pusetau	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{u}P_L\gamma^\mu s)(\bar{e}\gamma_\mu\nu_ au)$	\mathbf{C}
5pusetau	$\frac{4\tilde{\zeta}_F^c}{\sqrt{2}}(\bar{u}P_L s)(\bar{e} u_ au)$	$^{\mathrm{C}}$

WC name	Operator	Type
7pusetau	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_L\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}\nu_\tau)$	С

usmunu

WC name	Operator	Type
1usmue	$\frac{4G_F}{\sqrt{2}}(\bar{u}P_R\gamma^{\mu}s)(\bar{\mu}\gamma_{\mu}\nu_e)$	C
5usmue	$\frac{4 \overset{\circ}{Q_F}}{\sqrt{2}} (\bar{u} P_R s) (\bar{\mu} \nu_e)$	$^{\mathrm{C}}$
1pusmue	$\frac{4 \overset{\circ}{N_F}}{\sqrt{2}} (\bar{u} P_L \gamma^{\mu} s) (\bar{\mu} \gamma_{\mu} \nu_e)$	$^{\mathrm{C}}$
5pusmue	$\frac{4\ddot{G}_F}{\sqrt{2}}(\bar{u}P_Ls)(\bar{\mu}\nu_e)$	\mathbf{C}
7pusmue	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_L \sigma^{\mu\nu} s) (\bar{\mu} \sigma_{\mu\nu} \nu_e)$	\mathbf{C}
1usmumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_R \gamma^\mu s) (\bar{\mu} \gamma_\mu \nu_\mu)$	\mathbf{C}
5usmumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_R s) (\bar{\mu} \nu_{\mu})$	\mathbf{C}
1pusmumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_L \gamma^\mu s) (\bar{\mu} \gamma_\mu \nu_\mu)$	\mathbf{C}
5pusmumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_L s) (\bar{\mu} \nu_{\mu})$	\mathbf{C}
7pusmumu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_L \sigma^{\mu\nu} s) (\bar{\mu} \sigma_{\mu\nu} \nu_{\mu})$	\mathbf{C}
1usmutau	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_R \gamma^\mu s) (\bar{\mu} \gamma_\mu \nu_\tau)$	\mathbf{C}
5usmutau	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{u} P_R s) (\bar{\mu} \nu_{\tau})$	\mathbf{C}
1pusmutau	$\frac{4\overset{\circ}{Q_F}}{\sqrt{2}}(\bar{u}P_L\gamma^{\mu}s)(\bar{\mu}\gamma_{\mu}\nu_{ au})$	\mathbf{C}
5pusmutau	$\frac{4\overset{C}{C_F}}{\sqrt{2}}(\bar{u}P_Ls)(\bar{\mu}\nu_{ au})$	\mathbf{C}
7pusmutau	$rac{4\widetilde{G}_F^c}{\sqrt{2}}(ar{u}P_L\sigma^{\mu u}s)(ar{\mu}\sigma_{\mu u} u_ au)$	$^{\mathrm{C}}$

sd

WC name	Operator	Type
7gammads	$\frac{4G_F}{\sqrt{2}}\frac{e}{a^2}m_s(\bar{d}P_R\sigma_{\mu\nu}s)F^{\mu\nu}$	C
8gds	$\begin{array}{c} \frac{4G_F}{\sqrt{2}} \frac{e}{g_s^2} m_s (\bar{d} P_R \sigma_{\mu\nu} s) F^{\mu\nu} \\ \frac{4G_F}{\sqrt{2}} \frac{1}{g_s} m_s (\bar{d} P_R \sigma_{\mu\nu} T^A s) G_A^{\mu\nu} \\ \frac{4G_F}{\sqrt{2}} \frac{e}{g_s^2} m_s (\bar{d} P_L \sigma_{\mu\nu} s) F^{\mu\nu} \end{array}$	$^{\mathrm{C}}$
7pgammads	$\frac{4\ddot{G}_F}{\sqrt{2}}\frac{\ddot{g}}{a^2}m_s(\bar{d}P_L\sigma_{\mu\nu}s)F^{\mu\nu}$	\mathbf{C}
8pgds	$rac{\sqrt{2}}{\sqrt{2}}rac{g_s^2}{q_s}m_s(ar{a}\Gamma_L\sigma_{\mu u}\sigma)^2 \ rac{4G_F}{2}rac{1}{q_s}m_s(ar{d}P_L\sigma_{\mu u}T^As)G_A^{\mu u}$	$^{\mathrm{C}}$
1dsuu	$\frac{4\ddot{G}_F}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{u}\gamma^\mu u)$	\mathbf{C}
2dsuu	$ \frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu}s)(\bar{u}\gamma^{\mu}u)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu}T^As)(\bar{u}\gamma^{\mu}T^Au)} \\ \frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{u}\gamma^{\mu\nu\rho}u)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{u}\gamma^{\mu\nu\rho}u)} $	\mathbf{C}
3dsuu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{u}\gamma^{\mu\nu\rho}u)$	\mathbf{C}
4dsuu	$\frac{4G_F^2}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}T^As)(\bar{u}\gamma^{\mu\nu\rho}T^Au)$	\mathbf{C}
5dsuu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_Rs)(\bar{u}u)$	\mathbf{C}
6dsuu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_RT^As)(\bar{u}T^Au)$	\mathbf{C}
7dsuu	$\frac{4 \overleftarrow{G_F}}{\sqrt{2}} (\bar{d} P_R \sigma^{\mu \nu} s) (\bar{u} \sigma_{\mu \nu} u)$	$^{\mathrm{C}}$
8dsuu	$\frac{\frac{4G_F^2}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{u}\sigma_{\mu\nu}u)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}T^As)(\bar{u}\sigma_{\mu\nu}T^Au)}$	$^{\mathrm{C}}$

VC name	Operator	Type
lsuu	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{u}\gamma^{\mu\nu\rho\sigma}u)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}T^As)(\bar{u}\gamma^{\mu\nu\rho\sigma}T^Au)}$	С
dsuu	$\frac{4\vec{Q}_F^2}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}T^As)(\bar{u}\gamma^{\mu\nu\rho\sigma}T^Au)$	\mathbf{C}
odsuu	$rac{4G_F}{\sqrt{2}}(ar{d}P_L\gamma_\mu s)(ar{u}\gamma^\mu u) \ rac{4G_F}{\sqrt{2}}(ar{d}P_L\gamma_\mu T^A s)(ar{u}\gamma^\mu T^A u)$	\mathbf{C}
dsuu	$\frac{4Q_F^2}{\sqrt{2}}(\bar{d}P_L\gamma_\mu T^As)(\bar{u}\gamma^\mu T^Au)$	\mathbf{C}
odsuu	$\frac{\sqrt{2}}{\sqrt{2}} (\bar{d}P_L \gamma_{\mu\nu\rho} s) (\bar{u}\gamma^{\mu\nu\rho} u) \\ \frac{4G_F}{\sqrt{2}} (\bar{d}P_L \gamma_{\mu\nu\rho} T^A s) (\bar{u}\gamma^{\mu\nu\rho} T^A u)$	\mathbf{C}
odsuu	$\frac{4G_F^2}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}T^As)(\bar{u}\gamma^{\mu\nu\rho}T^Au)$	\mathbf{C}
odsuu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{u}u)$	\mathbf{C}
odsuu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_LT^As)(\bar{u}T^Au)$	$^{\mathrm{C}}$
dsuu	$\frac{4G_F}{\sigma}(dP_I\sigma^{\mu\nu}s)(\bar{u}\sigmau)$	$^{\mathrm{C}}$
dsuu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\sigma^{\mu\nu}T^As)(\bar{u}\sigma_{\mu\nu}T^Au)$	$^{\mathrm{C}}$
dsuu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\sigma^{\mu\nu}T^As)(\bar{u}\sigma_{\mu\nu}T^Au)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}s)(\bar{u}\gamma^{\mu\nu\rho\sigma}u)$ $\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}T^As)(\bar{u}\gamma^{\mu\nu\rho\sigma}T^Au)$	$^{\mathrm{C}}$
pdsuu	$\frac{4G_F}{G_F}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}T^As)(\bar{u}\gamma^{\mu\nu\rho\sigma}T^Au)$	$^{\mathrm{C}}$
lsss	$\frac{4G_F}{\sqrt{5}}(\bar{d}P_R\gamma_\mu s)(\bar{s}\gamma^\mu s)$	$^{\mathrm{C}}$
SSS	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{s}\gamma^{\mu\nu\rho}s)$	$^{\mathrm{C}}$
.SSS	$\frac{\sqrt{2}}{\sqrt{6}}(ar{d}P_Rs)(ar{s}s)$	$^{\mathrm{C}}$
SSS	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{s}\sigma_{\mu\nu}s)$	$^{\mathrm{C}}$
SSS	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{s}\gamma^{\mu\nu\rho\sigma}s)$	$^{\mathrm{C}}$
dsss	$rac{4G_F}{\sqrt{2}}(ar{d}P_L\gamma_\mu s)(ar{s}\gamma^\mu s)$	$^{\mathrm{C}}$
dsss	$\frac{\frac{4G_F}{\sqrt{2}}(dP_L\gamma_{\mu\nu\rho\sigma}T^As)(\bar{u}\gamma^{\mu\nu\rho\sigma}T^Au)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu}s)(\bar{s}\gamma^{\mu}s)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{s}\gamma^{\mu\nu\rho}s)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_Rs)(\bar{s}s)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{s}\sigma_{\mu\nu}s)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{s}\gamma^{\mu\nu\rho\sigma}s)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu}s)(\bar{s}\gamma^{\mu}s)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{s}\gamma^{\mu\nu\rho}s)}$ $\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{s}\gamma^{\mu\nu\rho}s)$	\mathbf{C}
dsss	$rac{4G_F^2}{\sqrt{2}}(ar{d}P_L s)(ar{s}s)$	\mathbf{C}
lsss	$\frac{4G_F}{\sqrt{2}}(ar{d}P_L\sigma^{\mu u}s)(ar{s}\sigma_{\mu u}s)$	\mathbf{C}
lsss	$\frac{1}{\sqrt{2}} (dP_L s)(ss)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}P_L \sigma^{\mu\nu} s)(\bar{s}\sigma_{\mu\nu} s)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}P_L \gamma_{\mu\nu\rho\sigma} s)(\bar{s}\gamma^{\mu\nu\rho\sigma} s)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}\gamma_{\mu} P_L s)(\bar{d}\gamma^{\mu} d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}\gamma_{\mu} P_R s)(\bar{d}\gamma^{\mu} d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}\gamma_{\mu\nu\rho} P_L s)(\bar{d}\gamma^{\mu\nu\rho} d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}\gamma_{\mu\nu\rho} P_R s)(\bar{d}\gamma^{\mu\nu\rho} d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}P_L s)(\bar{d}d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}P_R s)(\bar{d}d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}P_R s)(\bar{d}d)$ $\frac{4G_F}{\sqrt{2}} (\bar{d}\sigma^{\mu\nu} P_R s)(\bar{d}\sigma^{\mu\nu} d)$	\mathbf{C}
dd	$rac{4G_F}{\sqrt{2}}(ar{d}\gamma_\mu P_L s)(ar{d}\gamma^\mu d)$	\mathbf{C}
lsdd	$rac{4Q_F^2}{\sqrt{2}}(ar{d}\gamma_\mu P_R s)(ar{d}\gamma^\mu d)$	\mathbf{C}
dd	$rac{4Q_F^2}{\sqrt{2}}(ar{d}\gamma_{\mu u ho}P_Ls)(ar{d}\gamma^{\mu u ho}d)$	\mathbf{C}
dsdd	$\frac{4\dot{Q}_F^2}{\sqrt{2}}(\bar{d}\gamma_{\mu u ho}P_Rs)(\bar{d}\gamma^{\mu u ho}d)$	\mathbf{C}
sdd	$\frac{4\tilde{Q}_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{d}d)$	\mathbf{C}
dsdd	$\frac{4\overset{Y}{G_F}}{\sqrt{2}}(\bar{d}P_Rs)(\bar{d}d)$	\mathbf{C}
sdd	$\frac{4\tilde{G}_F^2}{\sqrt{2}}(\bar{d}\sigma^{\mu\nu}P_Ls)(\bar{d}\sigma_{\mu\nu}d)$	\mathbf{C}
dsdd	$\frac{4\tilde{Q}_F^2}{\sqrt{2}}(\bar{d}\sigma^{\mu\nu}P_Rs)(\bar{d}\sigma_{\mu\nu}d)$	\mathbf{C}
sdd	$\frac{4\tilde{Q}_F^2}{\sqrt{2}}(\bar{d}\gamma_{\mu\nu\rho\sigma}P_Ls)(\bar{d}\gamma^{\mu\nu\rho\sigma}d)$	\mathbf{C}
dsdd	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}\gamma_{\mu\nu\rho\sigma}P_Rs)(\bar{d}\gamma^{\mu\nu\rho\sigma}d)$	\mathbf{C}
see	$\frac{4\check{G}_{F}}{\sqrt{2}}(\bar{d}P_{R}\gamma_{\mu}s)(\bar{e}\gamma^{\mu}e)$	\mathbf{C}
dsee	$\frac{4\check{G_F}}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{e}\gamma^\mu e)$	\mathbf{C}
see	$\frac{4\check{G_F}}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}e)$	\mathbf{C}
dsee	$\frac{\frac{1}{\sqrt{2}}(dP_Rs)(da)}{\frac{4G_F}{\sqrt{2}}(\bar{d}\sigma^{\mu\nu}P_Ls)(\bar{d}\sigma_{\mu\nu}d)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}\sigma^{\mu\nu}P_Rs)(\bar{d}\sigma_{\mu\nu}d)}{\frac{4G_F}{\sqrt{2}}(\bar{d}\gamma_{\mu\nu\rho\sigma}P_Ls)(\bar{d}\gamma^{\mu\nu\rho\sigma}d)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}\gamma_{\mu\nu\rho\sigma}P_Rs)(\bar{d}\gamma^{\mu\nu\rho\sigma}d)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu}s)(\bar{e}\gamma^{\mu}e)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu}s)(\bar{e}\gamma^{\mu}e)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}e)}$ $\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}e)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}e)}$ $\frac{4G_F}{\sqrt{2}}(\bar{d}P_Rs)(\bar{e}e)$	\mathbf{C}
see	$\frac{4\overleftarrow{G_F}}{\sqrt{2}}(\bar{d}P_Rs)(\bar{e}e)$	$^{\mathrm{C}}$

WC name	Operator	Type
5pdsee	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L s)(\bar{e}e)$	C
7dsee	$\frac{4 \overleftarrow{Q_F}}{\sqrt{2}} (\overline{d} P_R \sigma^{\mu u} s) (\overline{e} \sigma_{\mu u} e)$	\mathbf{C}
7pdsee	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}e)$	\mathbf{C}
9dsee	$\frac{4\overleftarrow{Q_F}}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{e}\gamma^{\mu\nu\rho\sigma}e)$	\mathbf{C}
9pdsee	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}s)(\bar{e}\gamma^{\mu\nu\rho\sigma}e)$	\mathbf{C}
1dsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{\mu}\gamma^\mu\mu)$	\mathbf{C}
1pdsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(ar{d}P_L\gamma_\mu s)(ar{\mu}\gamma^\mu\mu)$	\mathbf{C}
3dsmumu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{\mu}\gamma^{\mu\nu\rho}\mu)$	\mathbf{C}
3pdsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{\mu}\gamma^{\mu\nu\rho}\mu)$	\mathbf{C}
5dsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_Rs)(\bar{\mu}\mu)$	\mathbf{C}
5pdsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L s)(\bar{\mu}\mu)$	\mathbf{C}
7dsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{\mu}\sigma_{\mu\nu}\mu)$	\mathbf{C}
7pdsmumu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L\sigma^{\mu\nu}s)(\bar{\mu}\sigma_{\mu\nu}\mu)$	$^{\mathrm{C}}$
9dsmumu	$\frac{4\overleftarrow{Q_F}}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{\mu}\gamma^{\mu\nu\rho\sigma}\mu)$	\mathbf{C}
9pdsmumu	$\frac{4\tilde{\zeta}_F^2}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}s)(\bar{\mu}\gamma^{\mu\nu\rho\sigma}\mu)$	С

${\tt sdmue}$

WC name	Operator	Type
1dsemu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{e}\gamma^\mu\mu)$	C
1pdsemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{e}\gamma^\mu\mu)$	\mathbf{C}
3dsemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}\mu)$	\mathbf{C}
3pdsemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{e}\gamma^{\mu\nu\rho}\mu)$	\mathbf{C}
5dsemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_Rs)(\bar{e}\mu)$	\mathbf{C}
5pdsemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{e}\mu)$	\mathbf{C}
7dsemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}\mu)$	\mathbf{C}
7pdsemu	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L\sigma^{\mu\nu}s)(\bar{e}\sigma_{\mu\nu}\mu)$	\mathbf{C}
9dsemu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{e}\gamma^{\mu\nu\rho\sigma}\mu)$	\mathbf{C}
9pdsemu	$\frac{\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho\sigma}s)(\bar{e}\gamma^{\mu\nu\rho\sigma}\mu)}{\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho\sigma}s)(\bar{e}\gamma^{\mu\nu\rho\sigma}\mu)}$	\mathbf{C}

sdemu

WC name	Operator	Type
1dsmue	$rac{4G_F}{\sqrt{2}}(ar{d}P_R\gamma_\mu s)(ar{\mu}\gamma^\mu e)$	С
1pdsmue	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{\mu}\gamma^\mu e)$	\mathbf{C}
3dsmue	$\frac{4\bar{G_F}}{\sqrt{2}}(\bar{d}P_R\gamma_{\mu\nu\rho}s)(\bar{\mu}\gamma^{\mu\nu\rho}e)$	\mathbf{C}

WC name	Operator	Type
3pdsmue	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_{\mu\nu\rho}s)(\bar{\mu}\gamma^{\mu\nu\rho}e)$	C
5dsmue	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R s)(\bar{\mu}e)$	$^{\mathrm{C}}$
5pdsmue	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_Ls)(\bar{\mu}e)$	$^{\mathrm{C}}$
7dsmue	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_R\sigma^{\mu\nu}s)(\bar{\mu}\sigma_{\mu\nu}e)$	$^{\mathrm{C}}$
7pdsmue	$\frac{4 \tilde{G}_F}{\sqrt{2}} (\bar{d} P_L \sigma^{\mu u} s) (\bar{\mu} \sigma_{\mu u} e)$	$^{\mathrm{C}}$
9dsmue	$\frac{4 \tilde{G}_F}{\sqrt{2}} (\bar{d} P_R \gamma_{\mu\nu\rho\sigma} s) (\bar{\mu} \gamma^{\mu\nu\rho\sigma} e)$	$^{\mathrm{C}}$
9pdsmue	$ \frac{4G_F}{\sqrt{2}}(\bar{d}P_L s)(\bar{\mu}e) \frac{4G_F}{\sqrt{2}}(\bar{d}P_R \sigma^{\mu\nu} s)(\bar{\mu}\sigma_{\mu\nu}e) \frac{4G_F}{\sqrt{2}}(\bar{d}P_L \sigma^{\mu\nu} s)(\bar{\mu}\sigma_{\mu\nu}e) \frac{4G_F}{\sqrt{2}}(\bar{d}P_R \gamma_{\mu\nu\rho\sigma} s)(\bar{\mu}\gamma^{\mu\nu\rho\sigma}e) \frac{4G_F}{\sqrt{2}}(\bar{d}P_L \gamma_{\mu\nu\rho\sigma} s)(\bar{\mu}\gamma^{\mu\nu\rho\sigma}e) $	C

${\tt sdnunu}$

WC name	Operator	Type
nu1dsee	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{\nu}_e\gamma^\mu\nu_e)$	C
nu1pdsee	$\frac{4\tilde{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{\nu}_e\gamma^\mu\nu_e)$	\mathbf{C}
nu1dsmumu	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{\nu}_\mu\gamma^\mu\nu_\mu)$	\mathbf{C}
nu1pdsmumu	$\frac{4\check{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{ u}_\mu\gamma^\mu u_\mu)$	\mathbf{C}
nu1dstautau	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}P_R\gamma_\mu s)(ar{ u}_ au\gamma^\mu u_ au)$	\mathbf{C}
nu1pdstautau	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{\nu}_\tau\gamma^\mu\nu_ au)$	\mathbf{C}
nu1dsemu	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{\nu}_e\gamma^\mu u_\mu)$	\mathbf{C}
nu1pdsemu	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{\nu}_e\gamma^\mu\nu_\mu)$	\mathbf{C}
nu1dsmue	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}P_R\gamma_\mu s)(ar{ u}_\mu\gamma^\mu u_e)$	\mathbf{C}
nu1pdsmue	$\frac{4\ddot{G}_F}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{ u}_\mu\gamma^\mu u_e)$	\mathbf{C}
nu1dsetau	$rac{4 G_F}{\sqrt{2}} (ar{d} P_R \gamma_\mu s) (ar{ u}_e \gamma^\mu u_ au)$	\mathbf{C}
nu1pdsetau	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{ u}_e\gamma^\mu u_ au)$	\mathbf{C}
nu1dstaue	$\frac{4G_F}{\sqrt{2}}(\bar{d}P_R\gamma_\mu s)(\bar{\nu}_\tau\gamma^\mu\nu_e)$	\mathbf{C}
nu1pdstaue	$\frac{4\ddot{G_F}}{\sqrt{2}}(\bar{d}P_L\gamma_\mu s)(\bar{ u}_ au\gamma^\mu u_e)$	\mathbf{C}
nu1dstaumu	$rac{4 \overleftarrow{G_F}}{\sqrt{2}} (ar{d} P_R \gamma_\mu s) (ar{ u}_ au \gamma^\mu u_\mu)$	\mathbf{C}
nu1pdstaumu	$rac{4 G_F}{\sqrt{2}} (ar{d} P_L \gamma_\mu s) (ar{ u}_ au \gamma^\mu u_\mu)$	\mathbf{C}
nu1dsmutau	$rac{4ar{G_F}}{\sqrt{2}}(ar{d}P_R\gamma_\mu s)(ar{ u}_\mu\gamma^\mu u_ au)$	\mathbf{C}
nu1pdsmutau	$rac{4G_F}{\sqrt{2}}(ar{d}P_L\gamma_\mu s)(ar{ u}_\mu\gamma^\mu u_ au)$	$^{\mathrm{C}}$