Basis flavio (EFT WET-3)

Sectors

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	$(ar{d}_R s_L)(ar{d}_L s_R)$	C

sdnunu

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

WC name	Operator	Type
CR_sdnutaunue	$\frac{4G_F}{\sqrt{2}}V_{td}V_{ts}^* \frac{e^2}{16\pi^2} (\bar{s}_R \gamma^\mu d_R) (\bar{\nu}_e \gamma_\mu (1-\gamma_5) \nu_\tau)$	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	$-rac{4\overset{\sim}{Q_F}}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^\mu s_R)(\bar{e}_L\gamma_\mu u_{eL})$	\mathbf{C}
CSR_suenue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{e}_R \nu_{eL})$	$^{\mathrm{C}}$
CSL_suenue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R\nu_{eL})$	$^{\mathrm{C}}$
CT_suenue	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
CVL_suenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CVR_suenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{\mu L})$	$^{\mathrm{C}}$
CSR_suenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CSL_suenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_Rs_L)(ar{e}_R u_{\mu L})$	$^{\mathrm{C}}$
CT_suenumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{\mu L})$	$^{\mathrm{C}}$
CVL_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CVR_suenutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{e}_L\gamma_\mu u_{ au L})$	$^{\mathrm{C}}$
CSR_suenutau	$-rac{4reve{G_F}}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{e}_R u_{ au L})$	\mathbf{C}
CSL_suenutau	$-\frac{4\overset{.}{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{e}_R u_{ au L})$	$^{\mathrm{C}}$
CT_suenutau	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{e}_R\sigma_{\mu u} u_{ au L})$	$^{\mathrm{C}}$

usmunu

WC name	Operator	Type
CVL_sumunue	$-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{\mu}_L\gamma_{\mu}\nu_{eL})$	C
CVR_sumunue	$-rac{4ar{G}_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{eL})$	\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	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{eL})$	\mathbf{C}
CVL_sumunumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L\gamma^\mu s_L)(ar{\mu}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CVR_sumunumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{\mu L})$	\mathbf{C}
CSR_sumunumu	$-rac{4ar{G_F}}{\sqrt{2}}V_{us}(ar{u}_L s_R)(ar{\mu}_R u_{\mu L})$	\mathbf{C}
CSL_sumunumu	$-\frac{4\check{G_F}}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{\mu}_R\nu_{\mu L})$	\mathbf{C}
CT_sumunumu	$-rac{4ar{Q}_F^{\Gamma}}{\sqrt{2}}V_{us}(ar{u}_R\sigma^{\mu u}s_L)(ar{\mu}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_sumunutau	$-\frac{4\overset{\leftarrow}{V_L}}{\sqrt{2}}V_{us}(\bar{u}_L\gamma^{\mu}s_L)(\bar{\mu}_L\gamma_{\mu}\nu_{\tau L})$	\mathbf{C}

WC name	Operator	Type
CVR_sumunutau	$-rac{4G_F}{\sqrt{2}}V_{us}(ar{u}_R\gamma^\mu s_R)(ar{\mu}_L\gamma_\mu u_{ au L})$	$\overline{\mathbf{C}}$
CSR_sumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_L s_R)(\bar{\mu}_R \nu_{\tau L})$	\mathbf{C}
CSL_sumunutau	$-\frac{4\tilde{G}_F}{\sqrt{2}}V_{us}(\bar{u}_R s_L)(\bar{\mu}_R \nu_{\tau L})$	\mathbf{C}
CT_sumunutau	$\begin{split} &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\gamma^{\mu}s_R)(\bar{\mu}_L\gamma_{\mu}\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Ls_R)(\bar{\mu}_R\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_Rs_L)(\bar{\mu}_R\nu_{\tau L})\\ &-\frac{4G_F}{\sqrt{2}}V_{us}(\bar{u}_R\sigma^{\mu\nu}s_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{\tau L}) \end{split}$	$^{\mathrm{C}}$

udenu

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

udmunu

WC name	Operator	Type
CVL_dumunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{eL})$	\overline{C}
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	$ \begin{array}{l} \sqrt{2} \; Vud(\bar{u}_R \gamma \; \bar{u}_R)(\bar{\mu}_L \; \bar{\mu} \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}} V_{ud}(\bar{u}_L d_R)(\bar{\mu}_R \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}} V_{ud}(\bar{u}_R d_L)(\bar{\mu}_R \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}} V_{ud}(\bar{u}_R \sigma^{\mu\nu} d_L)(\bar{\mu}_R \sigma_{\mu\nu} \nu_{eL}) \\ -\frac{4G_F}{\sqrt{2}} V_{ud}(\bar{u}_L \gamma^{\mu} d_L)(\bar{\mu}_L \gamma_{\mu} \nu_{\mu L}) \\ -\frac{4G_F}{\sqrt{2}} V_{ud}(\bar{u}_R \gamma^{\mu} d_R)(\bar{\mu}_L \gamma_{\mu} \nu_{\mu L}) \end{array} $	\mathbf{C}
CSL_dumunue	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_Rd_L)(\bar{\mu}_R\nu_{eL})$	\mathbf{C}
CT_dumunue	$-rac{4G_F}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{\mu}_R\sigma_{\mu u} u_{eL})$	$^{\mathrm{C}}$
$CVL_dumunumu$	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CVR_dumunumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu\nu_{\mu L})$	\mathbf{C}
CSR_dumunumu	$-rac{4G_F}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{\mu}_R u_{\mu L})$	\mathbf{C}

WC name	Operator	Type
CSL_dumunumu	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R d_L)(\bar{\mu}_R \nu_{\mu L})$	C
CT_dumunumu	$-rac{4G_F}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{\mu}_R u_{\mu L}) \ -rac{4G_F}{\sqrt{2}}V_{ud}(ar{u}_R\sigma^{\mu u}d_L)(ar{\mu}_R\sigma_{\mu u} u_{\mu L})$	\mathbf{C}
CVL_dumunutau	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_L\gamma^\mu d_L)(\bar{\mu}_L\gamma_\mu\nu_{\tau L})$	\mathbf{C}
CVR_dumunutau	$-\frac{4G_F^2}{\sqrt{2}}V_{ud}(\bar{u}_R\gamma^\mu d_R)(\bar{\mu}_L\gamma_\mu\nu_{\tau L})$	\mathbf{C}
CSR_dumunutau	$-rac{4ar{G_F}}{\sqrt{2}}V_{ud}(ar{u}_Ld_R)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CSL_dumunutau	$-rac{4G_F}{\sqrt{2}}V_{ud}(ar{u}_Rd_L)(ar{\mu}_R u_{ au L})$	\mathbf{C}
CT_dumunutau	$-\frac{4G_F}{\sqrt{2}}V_{ud}(\bar{u}_R\sigma^{\mu\nu}d_L)(\bar{\mu}_R\sigma_{\mu\nu}\nu_{\tau L})$	$^{\mathrm{C}}$