Basis JMS (EFT WET-3)

Variant of the basis suggested by Jenkins, Manohar, and Stoffer (arXiv:1709.04486) with only three dynamical quark flavors.

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
VddLL_1212	$(ar{d}_L \gamma^\mu s_L) (ar{d}_L \gamma_\mu s_L)$	С
VddRR_1212	$(ar{d}_R \gamma^\mu s_R) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
V1ddLR_1212	$(ar{d}_L \gamma^\mu s_L) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
V8ddLR_1212	$(\bar{d}_L \gamma^\mu T^A s_L)(\bar{d}_R \gamma_\mu T^A s_R)$	\mathbf{C}
S1ddRR_1212	$(ar{d}_L s_R)(ar{d}_L s_R)$	\mathbf{C}
S1ddRR_2121	$(\bar{s}_L d_R)(\bar{s}_L d_R)$	\mathbf{C}
S8ddRR_1212	$(\bar{d}_L T^A s_R)(\bar{d}_L T^A s_R)$	\mathbf{C}
S8ddRR_2121	$(\bar{s}_L T^A d_R)(\bar{s}_L T^A d_R)$	\mathbf{C}

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WC name	Operator	Type
dgamma_12	$ar{d}_L \sigma^{\mu u} s_R F_{\mu u}$	С
dgamma_21	$ar{s}_L \sigma^{\mu u} d_R F_{\mu u}$	$^{\mathrm{C}}$
dG_12	$ar{d}_L \sigma^{\mu u} T^A s_R G^A_{\mu u}$	$^{\mathrm{C}}$
dG_21	$ar{s}_L \sigma^{\mu u} T^A d_R G^A_{\mu u}$	$^{\mathrm{C}}$
VedLL_1112	$(ar{e}_L \gamma^\mu e_L) (ar{d}_L \dot{\gamma_\mu} s_L)$	$^{\mathrm{C}}$
VedLL_2212	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{d}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
VddLL_1112	$(ar{d}_L \gamma^\mu d_L) (ar{d}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
VddLL_1222	$(ar{d}_L \gamma^\mu s_L) (ar{s}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
V1udLL_1112	$(ar{u}_L \gamma^\mu u_L) (ar{d}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
V8udLL_1112	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{d}_L \gamma_\mu T^A s_L)$	$^{\mathrm{C}}$
VedRR_1112	$(ar{e}_R \gamma^\mu e_R) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
VedRR_2212	$(ar{\mu}_R \gamma^\mu \mu_R) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
VddRR_1112	$(ar{d}_R \gamma^\mu d_R) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}

WC name	Operator	Type
VddRR_1222	$(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu s_R)$	C
V1udRR_1112	$(ar{u}_R \gamma^\mu u_R) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
V8udRR_1112	$(\bar{u}_R \gamma^\mu T^A u_R)(\bar{d}_R \gamma_\mu T^A s_R)$	\mathbf{C}
VedLR_1112	$(ar{e}_L\gamma^\mu e_L)(ar{d}_R\gamma_\mu s_R)$	\mathbf{C}
VedLR_2212	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
VdeLR_1211	$(ar{d}_L \gamma^\mu s_L) (ar{e}_R \gamma_\mu e_R)$	\mathbf{C}
VdeLR_1222	$(ar{d}_L \gamma^\mu s_L)(ar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
V1udLR_1112	$(ar{u}_L \gamma^\mu u_L) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
V8udLR_1112	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{d}_R \gamma_\mu T^A s_R)$	$^{\mathrm{C}}$
V1duLR_1211	$(ar{d}_L \gamma^\mu s_L)(ar{u}_R \gamma_\mu u_R)$	$^{\mathrm{C}}$
V8duLR_1211	$(\bar{d}_L \gamma^\mu T^A s_L)(\bar{u}_R \gamma_\mu T^A u_R)$	\mathbf{C}
V1ddLR_1112	$(ar{d}_L \gamma^\mu d_L) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
V1ddLR_1211	$(ar{d}_L \gamma^\mu s_L) (ar{d}_R \gamma_\mu d_R)$	$^{\mathrm{C}}$
V1ddLR_1222	$(ar{d}_L \gamma^\mu s_L) (ar{s}_R \gamma_\mu s_R)$	\mathbf{C}
V1ddLR_2212	$(ar{s}_L \gamma^\mu s_L) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
V8ddLR_1112	$(ar{d}_L \gamma^\mu T^A d_L) (ar{d}_R \gamma_\mu T^A s_R)$	$^{\mathrm{C}}$
V8ddLR_1211	$(ar{d}_L \gamma^\mu T^A s_L) (ar{d}_R \gamma_\mu T^A d_R)$	\mathbf{C}
V8ddLR_1222	$(ar{d}_L \gamma^\mu T^A s_L) (ar{s}_R \gamma_\mu T^A s_R)$	$^{\mathrm{C}}$
V8ddLR_2212	$(\bar{s}_L \gamma^\mu T^A s_L)(\bar{d}_R \gamma_\mu T^A s_R)$	\mathbf{C}
V1udduLR_1121	$(ar{u}_L \gamma^\mu d_L) (ar{s}_R \gamma_\mu u_R)$	\mathbf{C}
V1udduLR_1211	$(ar{u}_L \gamma^\mu s_L) (ar{d}_R \gamma_\mu u_R)$	\mathbf{C}
V8udduLR_1121	$(ar{u}_L \gamma^\mu T^A d_L) (ar{s}_R \gamma_\mu T^A u_R)$	\mathbf{C}
V8udduLR_1211	$(ar{u}_L\gamma^\mu T^A_{}s_L)(d_R\gamma_\mu T^Au_R)$	\mathbf{C}
SedRL_1112	$(ar{e}_L e_R)(d_R s_L)$	\mathbf{C}
SedRL_1121	$(ar{e}_L e_R)(ar{s}_{ar{R}} d_L)$	С
SedRL_2212	$(ar{\mu}_L \mu_R)(d_R s_L)$	$^{\mathrm{C}}$
SedRL_2221	$(ar{\mu}_L\mu_R)(ar{s}_Rd_L)$	$^{\mathrm{C}}$
SedRR_1112	$(ar{e}_L e_R)(d_L s_R)$	$^{\mathrm{C}}$
SedRR_1121	$(ar{e}_L e_R)(ar{s}_L d_R)$	$^{\mathrm{C}}$
SedRR_2212	$(ar{\mu}_L\mu_R)(d_Ls_R)$	$\stackrel{ ext{C}}{ ilde{\sim}}$
SedRR_2221	$(ar{\mu}_L\mu_R)(ar{s}_Ld_R)$	$\stackrel{ ext{C}}{ ilde{\sim}}$
TedRR_1112	$(\bar{e}_L \sigma^{\mu u} e_R) (d_L \sigma_{\mu u} s_R)$	$\stackrel{ ext{C}}{ ilde{\sim}}$
TedRR_1121	$(\bar{e}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} d_R)$	$\stackrel{ ext{C}}{\sim}$
TedRR_2212	$(\bar{\mu}_L \sigma^{\mu u} \mu_R) (\bar{d}_L \sigma_{\mu u} s_R)$	C
TedRR_2221	$(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}d_R)$	C
S1udRR_1112	$(\bar{u}_L u_R)(d_L s_R)$	C
S1udRR_1121	$(\bar{u}_L u_R)(\bar{s}_L d_R)$	C
S8udRR_1112	$(\bar{u}_L T^A u_R)(\bar{d}_L T^A s_R)$	C
S8udRR_1121	$(ar{u}_L T^A u_R)(ar{s}_L T^A d_R)$	C
S1ddRR_1112	$(d_L d_R)(d_L s_R)$	C
S1ddRR_1121	$(d_L d_R)(\bar{s}_L d_R)$	С
S1ddRR_1222	$(d_L s_R)(ar s_L s_R)$	$^{\mathrm{C}}$

WC name	Operator	Type
S1ddRR_2122	$(\bar{s}_L d_R)(\bar{s}_L s_R)$	
S8ddRR_1112	$(ar{d}_L T^A d_R) (ar{d}_L T^A s_R)$	$^{\mathrm{C}}$
S8ddRR_1121	$(ar{d}_L T^A d_R) (ar{s}_L T^A d_R)$	\mathbf{C}
S8ddRR_1222	$(ar{d}_L T^A s_R) (ar{s}_L T^A s_R)$	$^{\mathrm{C}}$
S8ddRR_2122	$(\bar{s}_L T^A d_R)(\bar{s}_L T^A s_R)$	$^{\mathrm{C}}$
S1udduRR_1121	$(ar{u}_L d_R)(ar{s}_L u_R)$	$^{\mathrm{C}}$
S1udduRR_1211	$(ar{u}_L s_R)(ar{d}_L u_R)$	$^{\mathrm{C}}$
S8udduRR_1121	$(\bar{u}_L T^A d_R)(\bar{s}_L T^A u_R)$	$^{\mathrm{C}}$
S8udduRR_1211	$(\bar{u}_L T^A s_R)(\bar{d}_L T^A u_R)$	\mathbf{C}

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WC name	Operator	Type
VedLL_1221	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_L \gamma_\mu d_L)$	C
VedRR_1221	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{s}_R \gamma_\mu d_R)$	C
VedLR_1221	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_R \gamma_\mu d_R)$	C
VdeLR_1221	$(ar{d}_L \gamma^\mu s_L) (ar{\mu}_R \gamma_\mu e_R)$	C
SedRL_1221	$(ar{e}_L\mu_R)(ar{s}_Rd_L)$	C
SedRL_2112	$(ar{\mu}_L e_R)(ar{d}_R s_L)$	C
SedRR_1221	$(ar{e}_L\mu_R)(ar{s}_Ld_R)$	C
SedRR_2112	$(ar{\mu}_L e_R)(ar{d}_L s_R)$	C
TedRR_1221	$(\bar{e}_L \sigma^{\mu u} \mu_R) (\bar{s}_L \sigma_{\mu u} d_R)$	C
TedRR_2112	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{d}_L \sigma_{\mu\nu} s_R)$	$^{\mathrm{C}}$

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WC name	Operator	Type
VedLL_1212	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_L \gamma_\mu s_L)$	C
VedRR_1212	$(ar{e}_R \gamma^\mu \mu_R) (ar{d}_R \gamma_\mu s_R)$	\mathbf{C}
VedLR_1212	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
VdeLR_1212	$(ar{d}_L \gamma^\mu s_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
SedRL_1212	$(ar{e}_L\mu_R)(ar{d}_Rs_L)$	\mathbf{C}
SedRL_2121	$(ar{\mu}_L e_R)(ar{s}_R d_L)$	$^{\mathrm{C}}$
SedRR_1212	$(ar{e}_L\mu_R)(ar{d}_Ls_R)$	$^{\mathrm{C}}$
SedRR_2121	$(ar{\mu}_L e_R)(ar{s}_L d_R)$	$^{\mathrm{C}}$
TedRR_1212	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}s_R)$	$^{\mathrm{C}}$
TedRR_2121	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} d_R)$	$^{\mathrm{C}}$

WC name	Operator	Type
egamma_12	$ar{e}_L \sigma^{\mu u} \mu_R F_{\mu u}$	C
egamma_21	$\bar{\mu}_L \sigma^{\mu u} e_R F_{\mu u}$	C
VeeLL_1112	$(ar{e}_L \gamma^\mu e_L) (ar{e}_L \gamma_\mu \mu_L)$	C
VeeLL_1222	$(ar{e}_L\gamma^\mu\mu_L)(ar{\mu}_L\gamma_\mu\mu_L)$	C
VnueLL_1112	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{L}\gamma_{\mu}\mu_{L})$	C
VnueLL_2212	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{e}_L \gamma_{\mu} \mu_L)$	C
VnueLL_3312	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} \mu_L)$	C
VeuLL_1211	$(ar{e}_L \gamma^\mu \mu_L) (ar{u}_L \gamma_\mu u_L)$	С
VedLL_1211	$(ar{e}_L \gamma^\mu \mu_L) (d_L \gamma_\mu d_L)$	$^{\mathrm{C}}$
VedLL_1222	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_L \gamma_\mu s_L)$	$^{\mathrm{C}}$
VeeRR_1112	$(ar{e}_R\gamma^\mu e_R)(ar{e}_R\gamma_\mu\mu_R)$	\mathbf{C}
VeeRR_1222	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	\mathbf{C}
VeuRR_1211	$(ar{e}_R\gamma^\mu\mu_R)(ar{u}_R\gamma_\mu u_R)$	$^{\mathrm{C}}$
VedRR_1211	$(ar{e}_R \gamma^\mu \mu_R) (ar{d}_R \gamma_\mu d_R)$	\mathbf{C}
VedRR_1222	$(ar{e}_R \gamma^\mu \mu_R) (ar{s}_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
VnueLR_1112	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{R}\gamma_{\mu}\mu_{R})$	$^{\mathrm{C}}$
VnueLR_2212	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (\bar{e}_R \gamma_{\mu} \mu_R)$	\mathbf{C}
VnueLR_3312	$(\bar{ u}_{\tau L} \gamma^{\mu} u_{\tau L}) (\bar{e}_R \gamma_{\mu} \mu_R)$	$^{\mathrm{C}}$
VeeLR_1112	$(ar{e}_L \gamma^\mu e_L)(ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
VeeLR_1211	$(ar{e}_L\gamma^\mu\mu_L)(ar{e}_R\gamma_\mu e_R)$	$^{\mathrm{C}}$
VeeLR_1222	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
VeeLR_2212	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
VeuLR_1211	$(ar{e}_L \gamma^\mu \mu_L) (ar{u}_R \gamma_\mu u_R)$	$^{\mathrm{C}}$
VedLR_1211	$(ar{e}_L \gamma^\mu \mu_L) (ar{d}_R \gamma_\mu d_R)$	\mathbf{C}
VedLR_1222	$(ar{e}_L \gamma^\mu \mu_L) (ar{s}_R \gamma_\mu s_R)$	\mathbf{C}
VueLR_1112	$(ar{u}_L \gamma^\mu u_L)(ar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
VdeLR_1112	$(ar{d}_L \gamma^\mu d_L) (ar{e}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
VdeLR_2212	$(ar s_L \gamma^\mu s_L)(ar e_R \gamma_\mu \mu_R)$	\mathbf{C}
SeuRL_1211	$(ar{e}_L\mu_R)(ar{u}_Ru_L)$	$^{\mathrm{C}}$
SeuRL_2111	$(ar{\mu}_L e_R)(ar{u}_R u_L)$	\mathbf{C}
SedRL_1211	$(ar{e}_L\mu_R)(ar{d}_Rd_L)$	$^{\mathrm{C}}$
	$(ar{e}_L\mu_R)(ar{s}_Rs_L)$	$^{\mathrm{C}}$
_ SedRL_2111	$(ar{\mu}_L e_R)(ar{d}_R d_L)$	$^{\mathrm{C}}$
SedRL_2122	$(\bar{\mu}_L e_R)(\bar{s}_R s_L)$	C
SeeRR_1112	$(\bar{e}_L e_R)(\bar{e}_L \mu_R)$	$\dot{ ext{C}}$
SeeRR_1121	$(ar{e}_L e_R)(ar{\mu}_L e_R)$	C
SeeRR_1222	$(\bar{e}_L \mu_R)(\bar{\mu}_L \mu_R)$	Č
SeeRR_2122	$(\bar{\mu}_L e_R)(\bar{\mu}_L \mu_R)$	Č
SeuRR_1211	$(\bar{e}_L \mu_R)(\bar{\mu}_L \mu_R)$	$\overset{\circ}{\mathrm{C}}$
SeuRR_2111	$(ar{\mu}_L e_R)(ar{u}_L u_R) = (ar{\mu}_L e_R)(ar{u}_L u_R)$	$\overset{\circ}{\mathrm{C}}$
TeuRR_1211	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{u}_L\sigma_{\mu u}u_R) \ (ar{e}_L\sigma^{\mu u}\mu_R)(ar{u}_L\sigma_{\mu u}u_R)$	$\overset{\circ}{\mathrm{C}}$
TeuRR_2111	$(ar{\mu}_L\sigma^{\mu u}e_R)(ar{u}_L\sigma_{\mu u}u_R) \ (ar{\mu}_L\sigma^{\mu u}e_R)(ar{u}_L\sigma_{\mu u}u_R)$	$\stackrel{\circ}{\mathrm{C}}$
104141_2111	$(\mu_L \circ \circ \kappa)(\alpha_L \circ \mu \nu \alpha \kappa)$	C

WC name	Operator	Type
SedRR_1211	$(ar{e}_L\mu_R)(ar{d}_Ld_R)$	C
SedRR_1222	$(ar{e}_L\mu_R)(ar{s}_Ls_R)$	$^{\mathrm{C}}$
SedRR_2111	$(ar{\mu}_L e_R)(ar{d}_L d_R)$	\mathbf{C}
SedRR_2122	$(ar{\mu}_L e_R)(ar{s}_L s_R)$	\mathbf{C}
TedRR_1211	$(ar{e}_L\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}d_R)$	$^{\mathrm{C}}$
TedRR_1222	$(\bar{e}_L \sigma^{\mu u} \mu_R) (\bar{s}_L \sigma_{\mu u} s_R)$	\mathbf{C}
TedRR_2111	$(ar{\mu}_L \sigma^{\mu u} e_R) (ar{d}_L \sigma_{\mu u} d_R)$	$^{\mathrm{C}}$
TedRR_2122	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	С

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WC name	Operator	Туре
VeeLL_1212	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_L \gamma_\mu \mu_L)$	С
VeeRR_1212	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
VeeLR_1212	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu \mu_R)$	\mathbf{C}
SeeRR_1212	$(\bar{e}_L \mu_R)(\bar{e}_L \mu_R)$	\mathbf{C}
SeeRR_2121	$(\bar{\mu}_L e_R)(\bar{\mu}_L e_R)$	\mathbf{C}

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WC name	Operator	Type
VnunuLL_1112	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{eL}\gamma_{\mu} u_{\mu L})$	С
VnunuLL_1222	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ u}_{\mu L}\gamma_{\mu} u_{\mu L})$	\mathbf{C}
VnunuLL_1233	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{ u}_{ au L}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1113	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{eL}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1223	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ u}_{\mu L}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1333	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ u}_{ au L}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1123	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{\mu L}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_2223	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{ u}_{\mu L} \gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_2333	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{ u}_{ au L} \gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1232	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ u}_{ au L}\gamma_{\mu} u_{\mu L})$	\mathbf{C}
VnunuLL_1323	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ u}_{\mu L}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1213	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ u}_{eL}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_1212	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{ u}_{eL}\gamma_{\mu} u_{\mu L})$	\mathbf{C}
VnunuLL_1313	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{ u}_{eL}\gamma_{\mu} u_{ au L})$	\mathbf{C}
VnunuLL_2323	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (\bar{ u}_{\mu L} \gamma_{\mu} u_{ au L})$	\mathbf{C}

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WC name	Operator	Type
VnueLL_1212	$(\bar{\nu}_{eL}\gamma^{\mu} u_{\mu L})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	
VnueLR_1212	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{e}_{R}\gamma_{\mu}\mu_{R})$	C
VnueLL_1312	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{e}_{L}\gamma_{\mu}\mu_{L})$	C
VnueLR_1312	$(\bar{ u}_{eL}\gamma^{\mu} u_{\tau L})(\bar{e}_{R}\gamma_{\mu}\mu_{R})$	C
VnueLL_2321	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_L \gamma_{\mu} e_L)$	\mathbf{C}
VnueLR_2321	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (\bar{\mu}_R \gamma_{\mu} e_R)$	C

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WC name	Operator	Type
VnueLL_1221	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	С
VnueLR_1221	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{\mu}_{R}\gamma_{\mu}e_{R})$	C
VnueLL_1321	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}e_{L})$	C
VnueLR_1321	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{R}\gamma_{\mu}e_{R})$	C
VnueLL_2312	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} \mu_L)$	C
VnueLR_2312	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{e}_R \gamma_{\mu} \mu_R)$	\mathbf{C}

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WC name	Operator	Type
egamma_11	$\bar{e}_L \sigma^{\mu u} e_R F_{\mu u}$	C
egamma_22	$ar{\mu}_L \sigma^{\mu u} \mu_R F_{\mu u}$	\mathbf{C}
ugamma_11	$ar{u}_L \sigma^{\mu u} u_R \dot{F_{\mu u}}$	$^{\mathrm{C}}$
dgamma_11	$ar{d}_L \sigma^{\mu u} d_R F_{\mu u}$	\mathbf{C}
dgamma_22	$ar{s}_L \sigma^{\mu u} s_R F_{\mu u}$	$^{\mathrm{C}}$
uG_11	$ar{u}_L \sigma^{\mu u} T^A u_R G^A_{\mu u}$	\mathbf{C}
dG_11	$ar{d}_L \sigma^{\mu u} T^A d_R G^A_{\mu u}$	\mathbf{C}
dG_22	$\bar{s}_L \sigma^{\mu u} T^A s_R G^A_{\mu u}$	\mathbf{C}
G	$f^{ABC}G^{A u}_{\mu}G^{B ho}_{ u}G^{C\mu}_{ ho}$	R
Gtilde	$f^{ABC}G^{A u}_{\mu}G^{B ho}_{ u}G^{C\mu}_{ ho} \ f^{ABC}\widetilde{G}^{A u}_{\mu}G^{B ho}_{ u}G^{C\mu}_{ ho}$	R
VnunuLL_1111	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{eL}\gamma_{\mu} u_{eL})$	R
VnunuLL_1122	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{\mu L}\gamma_{\mu} u_{\mu L})$	R
VnunuLL_1133	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{ u}_{ au L}\gamma_{\mu} u_{ au L})$	R
VnunuLL_2222	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{ u}_{\mu L} \gamma_{\mu} u_{\mu L})$	R
VnunuLL_2233	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (\bar{ u}_{\tau L} \gamma_{\mu} u_{\tau L})$	R
VnunuLL_3333	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{ u}_{ au L} \gamma_{\mu} u_{ au L})$	R
VeeLL_1111	$(ar{e}_L \gamma^\mu e_L) (ar{e}_L \gamma_\mu e_L)$	R
VeeLL_1122	$(ar{e}_L \gamma^\mu e_L) (ar{\mu}_L \gamma_\mu \mu_L)$	R
VeeLL_2222	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{\mu}_L \gamma_\mu \mu_L)$	R
VnueLL_1111	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{L}\gamma_{\mu}e_{L})$	R

C name	Operator	Type
nueLL_1122	$(\bar{\nu}_{eL}\gamma^{\mu}\nu_{eL})(\bar{\mu}_{L}\gamma_{\mu}\mu_{L})$	R
nueLL_2211	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{e}_L \gamma_{\mu} e_L)$	R
nueLL_2222	$(ar u_{\mu L} \gamma^\mu u_{\mu L}) (ar\mu_L \gamma_\mu \mu_L)$	R
nueLL_3311	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} e_L)$	R
nueLL_3322	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{\mu}_{L} \gamma_{\mu} \mu_{L})$	R
nuuLL_1111	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{u}_{L}\gamma_{\mu}u_{L})$	R
nuuLL_2211	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{u}_L \gamma_{\mu} u_L)$	R
nuuLL_3311	$(\bar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (\bar{u}_L \gamma_{\mu} u_L)$	R
nudLL_1111	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{d}_{L}\gamma_{\mu}\dot{d}_{L})$	R
nudLL_1122	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{s}_{L}\gamma_{\mu}s_{L})$	R
nudLL_2211	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{d}_L \gamma_{\mu} d_L)$	R
nudLL_2222	$(ar{ u}_{\mu L}\gamma^{\mu} u_{\mu L})(ar{s}_{L}\gamma_{\mu}s_{L})$	R
nudLL_3311	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{d}_L \gamma_{\mu} d_L)$	R
udLL_3322	$(ar{ u}_{ au L} \gamma^{\mu} u_{ au L}) (ar{s}_{L} \gamma_{\mu} s_{L})$	\mathbf{R}
euLL_1111	$(ar{e}_L\gamma^\mu e_L)(ar{u}_L\gamma_\mu u_L)$	R
euLL_2211	$(ar{\mu}_L\gamma^\mu\mu_L)(ar{u}_L\gamma_\mu u_L)$	R
edLL_1111	$(ar{e}_L\gamma^\mu e_L)(ar{d}_L\gamma_\mu d_L)$	\mathbf{R}
edLL_1122	$(ar{e}_L\gamma^\mu e_L)(ar{s}_L\gamma_\mu s_L)$	\mathbf{R}
_ edLL_2211	$(ar{\mu}_L\gamma^\mu\mu_L)(ar{d}_L\gamma_\mu d_L)$	${ m R}$
edLL_2222	$(ar{\mu}_L\gamma^\mu\mu_L)(ar{s}_L\gamma_\mu s_L)$	R
uLL_1111	$(ar{u}_L\gamma^\mu u_L)(ar{u}_L\gamma_\mu u_L)$	R
_ ddLL_1111	$(ar{d}_L\gamma^\mu d_L)(ar{d}_L\gamma_\mu d_L)$	\mathbf{R}
_ ldLL_1122	$(ar{d}_L\gamma^\mu d_L)(ar{s}_L\gamma_\mu s_L)$	\mathbf{R}
ddLL_1221	$(ar{d}_L\gamma^\mu s_L)(ar{s}_L\gamma_\mu d_L) \ (ar{d}_L\gamma^\mu s_L)(ar{s}_L\gamma_\mu d_L)$	R
ddLL_2222	$(ar s_L \gamma^\mu s_L) (ar s_L \gamma_\mu s_L)$	R
ludLL_1111	$egin{array}{l} (ar{u}_L\gamma^\mu u_L)(ar{d}_L\gamma_\mu d_L) \ \end{array}$	R
ludLL_1122	$(ar{u}_L\gamma^\mu u_L)(ar{s}_L\gamma_\mu s_L) \ (ar{u}_L\gamma^\mu u_L)(ar{s}_L\gamma_\mu s_L)$	R
BudLL_1111	$(ar{u}_L\gamma^\mu T^A u_L)(ar{d}_L\gamma_\mu T^A d_L)$	R
BudLL_1122	$(ar{u}_L\gamma^\mu T^A u_L)(ar{s}_L\gamma_\mu T^A s_L)$	R
eeRR 1111	$(ar{e}_R\gamma^{\mu}e_R)(ar{e}_R\gamma_{\mu}e_R)$	R
eeRR_1122	$(\bar{e}_R\gamma^{\mu}e_R)(\bar{\mu}_R\gamma_{\mu}\mu_R)$	R
eeRR_2222	$(\bar{\mu}_R \gamma^\mu \mu_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
euRR_1111	$(\bar{e}_R\gamma^{\mu}e_R)(\bar{u}_R\gamma_{\mu}u_R)$	R
euRR 2211	$(ar{\mu}_R\gamma^\mu\mu_R)(ar{u}_R\gamma_\mu u_R)$	R
edRR_1111	$(ar{e}_R\gamma^\mu e_R)(ar{d}_R\gamma_\mu d_R)$	R
edRR_1122	$(ar{e}_R\gamma^\mu e_R)(ar{s}_R\gamma_\mu s_R)$	R
edRR_2211	$(\bar{\mu}_R\gamma^\mu\mu_R)(\bar{d}_R\gamma_\mu d_R)$	R
edRR_2222	$(ar{\mu}_R\gamma^\mu\mu_R)(ar{s}_R\gamma_\mu s_R) \ (ar{\mu}_R\gamma^\mu\mu_R)(ar{s}_R\gamma_\mu s_R)$	R
uRR_1111	$(ar{u}_R\gamma^\mu u_R)(ar{u}_R\gamma_\mu u_R) \ (ar{u}_R\gamma^\mu u_R)$	R
dRR_1111	$(ar{d}_R\gamma^\mu d_R)(ar{d}_R\gamma_\mu d_R) \ (ar{d}_R\gamma^\mu d_R)(ar{d}_R\gamma_\mu d_R)$	R
dRR_1122	$(ar{d}_R\gamma^\mu d_R)(ar{s}_R\gamma_\mu s_R) \ (ar{d}_R\gamma^\mu d_R)(ar{s}_R\gamma_\mu s_R)$	R
dRR_1221	$(ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu d_R) \ (ar{d}_R\gamma^\mu s_R)(ar{s}_R\gamma_\mu d_R)$	R
idRR_2222	$(\overline{s}_R\gamma^\mu s_R)(\overline{s}_R\gamma_\mu s_R) \ (\overline{s}_R\gamma^\mu s_R)(\overline{s}_R\gamma_\mu s_R)$	R

$\begin{array}{llllllllllllllllllllllllllllllllllll$	WC name	Operator	Type
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V1udRR_1111	$(\bar{u}_R \gamma^\mu u_R)(\bar{d}_R \gamma_\mu d_R)$	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	V1udRR_1122		R
$\begin{array}{llllllllllllllllllllllllllllllllllll$	V8udRR_1111		R
$\begin{array}{llllllllllllllllllllllllllllllllllll$		$(\bar{u}_R \gamma^\mu T^A u_R)(\bar{s}_R \gamma_\mu T^A s_R)$	${ m R}$
$\begin{array}{llllllllllllllllllllllllllllllllllll$		$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{e}_{R}\gamma_{\mu}e_{R})$	
$\begin{array}{llllllllllllllllllllllllllllllllllll$			
$\begin{array}{llllllllllllllllllllllllllllllllllll$		$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{e}_R \gamma_{\mu} e_R)$	
$\begin{array}{llllllllllllllllllllllllllllllllllll$		$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{\mu}_R \gamma_{\mu} \mu_R)$	
$\begin{array}{llllllllllllllllllllllllllllllllllll$			
$\begin{array}{llllllllllllllllllllllllllllllllllll$	VnueLR_3322		
$\begin{array}{llllllllllllllllllllllllllllllllllll$			
$\begin{array}{llllllllllllllllllllllllllllllllllll$		$(ar{e}_L \gamma^\mu e_L)(ar{\mu}_R \gamma_\mu \mu_R)$	
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$\begin{array}{llllllllllllllllllllllllllllllllllll$	-		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	_	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{u}_R \gamma_{\mu} u_R)$	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	the state of the s	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	· · · · · · · · · · · · · · · · · · ·	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VeuLR_2211	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{u}_R \gamma_\mu u_R)$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	the state of the s	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VedLR_1122		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VedLR_2211		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VedLR_2222	$(ar{\mu}_L \gamma^\mu \mu_L) (ar{s}_R \gamma_\mu s_R)$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VueLR_1111		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VueLR_1122		R
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_		${ m R}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VdeLR_1122	$(ar{d}_L \gamma^\mu d_L) (ar{\mu}_R \gamma_\mu \mu_R)$	\mathbf{R}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VdeLR_2211	$(\bar{s}_L \gamma^\mu s_L)(\bar{e}_R \gamma_\mu e_R)$	\mathbf{R}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	VdeLR_2222		\mathbf{R}
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V1uuLR_1111		
$\begin{array}{lll} {\rm V1udLR_1122} & & (\bar{u}_L\gamma^\mu u_L)(\bar{s}_R\gamma_\mu s_R) & {\rm R} \\ {\rm V8udLR_1111} & & (\bar{u}_L\gamma^\mu T^A u_L)(\bar{d}_R\gamma_\mu T^A d_R) & {\rm R} \\ {\rm V8udLR_1122} & & (\bar{u}_L\gamma^\mu T^A u_L)(\bar{s}_R\gamma_\mu T^A s_R) & {\rm R} \\ \end{array}$	V8uuLR_1111		\mathbf{R}
$\begin{array}{lll} {\rm V1udLR_1122} & & (\bar{u}_L\gamma^\mu u_L)(\bar{s}_R\gamma_\mu s_R) & {\rm R} \\ {\rm V8udLR_1111} & & (\bar{u}_L\gamma^\mu T^A u_L)(\bar{d}_R\gamma_\mu T^A d_R) & {\rm R} \\ {\rm V8udLR_1122} & & (\bar{u}_L\gamma^\mu T^A u_L)(\bar{s}_R\gamma_\mu T^A s_R) & {\rm R} \\ \end{array}$	V1udLR_1111	$(ar{u}_L \gamma^\mu u_L) (ar{d}_R \gamma_\mu d_R)$	\mathbf{R}
V8udLR_1122 $(\bar{u}_L \gamma^\mu T^A u_L)(\bar{s}_R \gamma_\mu T^A s_R)$ R	V1udLR_1122	$(ar{u}_L \gamma^\mu u_L) (ar{s}_R \gamma_\mu s_R)$	\mathbf{R}
	V8udLR_1111		R
V1duLR_1111 $(\bar{d}_L \gamma^\mu d_L)(\bar{u}_R \gamma_\mu u_R)$ R	V8udLR_1122	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{s}_R \gamma_\mu T^A s_R)$	\mathbf{R}
	V1duLR_1111	$(ar{d}_L\gamma^\mu d_L)(ar{u}_R\gamma_\mu u_R)$	R

WC name	Operator	Type
V1duLR_2211	$(\bar{s}_L \gamma^\mu s_L)(\bar{u}_R \gamma_\mu u_R)$	R
V8duLR_1111	$(\bar{d}_L\gamma^\mu T^A d_L)(\bar{u}_R\gamma_\mu T^A u_R)$	\mathbf{R}
V8duLR_2211	$(\bar{s}_L\gamma^\mu T^A s_L)(\bar{u}_R\gamma_\mu T^A u_R)$	\mathbf{R}
V1ddLR_1111	$(ar{d}_L\gamma^\mu d_L)(ar{d}_R\gamma_\mu d_R)$	${ m R}$
V1ddLR_1122	$(ar{d}_L\gamma^\mu d_L)(ar{s}_R\gamma_\mu s_R)$	\mathbf{R}
V1ddLR_1221	$(ar{d}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu d_R)$	$^{\mathrm{C}}$
V1ddLR_2211	$(\bar{s}_L\gamma^\mu s_L)(\bar{d}_R\gamma_\mu d_R)$	\mathbf{R}
V1ddLR_2222	$(ar{s}_L\gamma^\mu s_L)(ar{s}_R\gamma_\mu s_R)$	${ m R}$
V8ddLR_1111	$(ar{d}_L \gamma^\mu T^A d_L) (ar{d}_R \gamma_\mu T^A d_R)$	${ m R}$
V8ddLR_1122	$(ar{d}_L\gamma^\mu T^A d_L)(ar{s}_R\gamma_\mu T^A s_R)$	${ m R}$
V8ddLR_1221	$(\bar{d}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A d_R)$	\mathbf{C}
V8ddLR_2211	$(ar{s}_L \gamma^\mu T^A s_L) (ar{d}_R \gamma_\mu T^A d_R)$	${ m R}$
V8ddLR_2222	$(\bar{s}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A s_R)$	${ m R}$
V1udduLR_1111	$(ar{u}_L \gamma^\mu d_L) (ar{d}_R \gamma_\mu u_R)$	\mathbf{C}
V1udduLR_1221	$(\bar{u}_L \gamma^\mu s_L)(\bar{s}_R \gamma_\mu u_R)$	\mathbf{C}
V8udduLR_1111	$(\bar{u}_L \gamma^\mu T^A d_L)(\bar{d}_R \gamma_\mu T^A u_R)$	\mathbf{C}
V8udduLR_1221	$(\bar{u}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A u_R)$	$^{\mathrm{C}}$
SeuRL_1111	$(ar{e}_L e_R)(ar{u}_R u_L)$	\mathbf{C}
SeuRL_2211	$(ar{\mu}_L\mu_R)(ar{u}_Ru_L)$	\mathbf{C}
SedRL_1111	$(ar{e}_L e_R)(ar{d}_R d_L)$	\mathbf{C}
SedRL_1122	$(ar{e}_L e_R)(ar{s}_{ar{R}} s_L)$	\mathbf{C}
SedRL_2211	$(ar{\mu}_L \mu_R)(d_R d_L)$	\mathbf{C}
SedRL_2222	$(ar{\mu}_L \mu_R)(ar{s}_R s_L)$	\mathbf{C}
SeeRR_1111	$(ar{e}_L e_R)(ar{e}_L e_R)$	$^{\mathrm{C}}$
SeeRR_1122	$(ar{e}_L e_R)(ar{\mu}_L \mu_R)$	C
SeeRR_1221	$(ar{e}_L\mu_R)(ar{\mu}_Le_R)$	$\stackrel{ ext{C}}{ ilde{\sim}}$
SeeRR_2222	$(\bar{\mu}_L \mu_R)(\bar{\mu}_L \mu_R)$	C
SeuRR_1111	$(\bar{e}_L e_R)(\bar{u}_L u_R)$	C
SeuRR_2211	$(\bar{\mu}_L \mu_R)(\bar{u}_L u_R)$	C
TeuRR_1111	$(\bar{e}_L \sigma^{\mu u} e_R)(\bar{u}_L \sigma_{\mu u} u_R)$	C
TeuRR_2211	$(ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{u}_L\sigma_{\mu u}u_R)$	C C
SedRR_1111	$(\bar{e}_L e_R)(d_L d_R)$	C
SedRR_1122 SedRR_2211	$(\bar{e}_L e_R)(\bar{s}_L s_R)$	C
SedRR 2222	$(\bar{\mu}_L \mu_R)(d_L d_R)$	C
-	$egin{aligned} (ar{\mu}_L\mu_R)(ar{s}_Ls_R) \ (ar{e}_L\sigma^{\mu u}e_R)(ar{d}_L\sigma_{\mu u}d_R) \end{aligned}$	C
TedRR_1111 TedRR_1122	$(\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{u}_L\sigma_{\mu\nu}u_R) \ (\bar{e}_L\sigma^{\mu\nu}e_R)(\bar{s}_L\sigma_{\mu\nu}s_R)$	$\stackrel{ ext{C}}{ ext{C}}$
TedRR_2211	$(\bar{\mu}_L \sigma^{\mu u} \mu_R)(\bar{d}_L \sigma_{\mu u} d_R)$	C
TedRR_2222	$(ar{\mu}_L\sigma^{\mu\nu}\mu_R)(ar{a}_L\sigma_{\mu u}a_R) \ (ar{\mu}_L\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}s_R)$	$\overset{\circ}{\mathrm{C}}$
S1uuRR_1111	$egin{array}{c} (ar{u}_L u_R) (ar{u}_L u_R) \end{array}$	$\overset{\circ}{ ext{C}}$
S8uuRR_1111	$(ar{u}_L u_R)(ar{u}_L u_R) \ (ar{u}_L T^A u_R)(ar{u}_L T^A u_R)$	$\overset{\circ}{ ext{C}}$
S1udRR_1111	$(ar{u}_L u_R)(ar{d}_L d_R)$	$\dot{\mathrm{C}}$
S1udRR_1122	$(ar{u}_L u_R)(ar{s}_L s_R) $	$\overset{\circ}{\mathrm{C}}$
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WC name	Operator	Type
S8udRR_1111	$(\bar{u}_L T^A u_R)(\bar{d}_L T^A d_R)$	С
S8udRR_1122	$(\bar{u}_L T^A u_R)(\bar{s}_L T^A s_R)$	$^{\mathrm{C}}$
S1ddRR_1111	$(ar{d}_L d_R)(ar{d}_L d_R)$	$^{\mathrm{C}}$
S1ddRR_1122	$(ar{d}_L d_R)(ar{s}_L s_R)$	$^{\mathrm{C}}$
S1ddRR_1221	$(ar{d}_L s_R)(ar{s}_L d_R)$	$^{\mathrm{C}}$
S1ddRR_2222	$(ar{s}_L s_R)(ar{s}_L s_R)$	C
S8ddRR_1111	$(ar{d}_L T^A d_R) (ar{d}_L T^A d_R)$	C
S8ddRR_1122	$(\bar{d}_L T^A d_R)(\bar{s}_L T^A s_R)$	\mathbf{C}
S8ddRR_1221	$(\bar{d}_L T^A s_R)(\bar{s}_L T^A d_R)$	\mathbf{C}
S8ddRR_2222	$(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R)$	\mathbf{C}
S1udduRR_1111	$(ar{u}_L d_R)(ar{d}_L u_R)$	\mathbf{C}
S1udduRR_1221	$(\bar{u}_L s_R)(\bar{s}_L u_R)$	\mathbf{C}
S8udduRR_1111	$(\bar{u}_L T^A d_R)(\bar{d}_L T^A u_R)$	\mathbf{C}
S8udduRR_1221	$(\bar{u}_L T^A s_R)(\bar{s}_L T^A u_R)$	\mathbf{C}
VnueLL_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{e}_{L}\gamma_{\mu}e_{L})$	\mathbf{C}
VnueLL_1222	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{L}\gamma_{\mu}\mu_{L})$	C
VnuuLL_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{u}_{L}\gamma_{\mu}u_{L})$	$^{\mathrm{C}}$
VnudLL_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{d}_{L}\gamma_{\mu}d_{L})$	C
VnudLL_1222	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{s}_{L}\gamma_{\mu}s_{L})$	$^{\mathrm{C}}$
VnueLR_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{e}_R\gamma_{\mu}e_R)$	$^{\mathrm{C}}$
VnueLR_1222	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{\mu}_{R}\gamma_{\mu}\mu_{R})$	$^{\mathrm{C}}$
VnuuLR_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{u}_{R}\gamma_{\mu}u_{R})$	$^{\mathrm{C}}$
VnudLR_1211	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{d}_R\gamma_{\mu}d_R)$	$^{\mathrm{C}}$
VnudLR_1222	$(\bar{ u}_{eL}\gamma^{\mu} u_{\mu L})(\bar{s}_R\gamma_{\mu}s_R)$	\mathbf{C}
VnueLL_1311	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{e}_{L}\gamma_{\mu}e_{L})$	$^{\mathrm{C}}$
VnueLL_1322	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{\mu}_{L}\gamma_{\mu}\mu_{L})$	$^{\mathrm{C}}$
VnuuLL_1311	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{u}_{L}\gamma_{\mu}u_{L})$	$^{\mathrm{C}}$
VnudLL_1311	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(d_{L}\gamma_{\mu}d_{L})$	$^{\mathrm{C}}$
VnudLL_1322	$(\bar{ u}_{eL}\gamma^{\mu} u_{ au L})(\bar{s}_{L}\gamma_{\mu}s_{L})$	$^{\mathrm{C}}$
VnueLR_1311	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{e}_{R}\gamma_{\mu}e_{R})$	$^{\mathrm{C}}$
VnueLR_1322	$(\bar{ u}_{eL}\gamma^{\mu} u_{\tau L})(\bar{\mu}_{R}\gamma_{\mu}\mu_{R})$	C
VnuuLR_1311	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{u}_{R}\gamma_{\mu}u_{R})$	C
VnudLR_1311	$(\bar{ u}_{eL}\gamma^{\mu} u_{\tau L})(d_R\gamma_{\mu}d_R)$	\mathbf{C}
VnudLR_1322	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{s}_{R}\gamma_{\mu}s_{R})$	$\stackrel{ ext{C}}{\sim}$
VnueLL_2311	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{e}_L \gamma_{\mu} e_L)$	C
VnueLL_2322	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{\mu}_{L} \gamma_{\mu} \mu_{L})$	C
VnuuLL_2311	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (\bar{u}_{L} \gamma_{\mu} u_{L})$	C
VnudLL_2311	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{d}_L \gamma_{\mu} d_L)$	C
VnudLL_2322	$(ar{ u}_{\mu L}\gamma^{\mu} u_{ au L})(ar{s}_{L}\gamma_{\mu}s_{L})$	С
VnueLR_2311	$(\bar{\nu}_{\mu L} \gamma^{\mu} \nu_{\tau L}) (\bar{e}_R \gamma_{\mu} e_R)$	C
VnueLR_2322	$(\bar{\nu}_{\mu L} \gamma^{\mu} \nu_{\tau L}) (\bar{\mu}_R \gamma_{\mu} \mu_R)$	C
VnuuLR_2311	$(\bar{\nu}_{\mu L} \gamma^{\mu} \nu_{\tau L}) (\bar{u}_R \gamma_{\mu} u_R)$	C
VnudLR_2311	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{d}_R \gamma_{\mu} d_R)$	С

WC name	Operator	Type
VnudLR_2322	$(\bar{\nu}_{\mu L} \gamma^{\mu} \nu_{\tau L}) (\bar{s}_R \gamma_{\mu} s_R)$	C

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WC name	Operator	Type
VnueduLL_1121	$(\bar{\nu}_{eL}\gamma^{\mu}e_L)(\bar{s}_L\gamma_{\mu}u_L)$	
VnueduLR_1121	$(\bar{ u}_{eL}\gamma^{\mu}e_L)(\bar{s}_R\gamma_{\mu}u_R)$	\mathbf{C}
SnueduRL_1121	$(ar{ u}_{eL}e_R)(ar{s}_Ru_L)$	C
SnueduRR_1121	$(ar{ u}_{eL}e_R)(ar{s}_Lu_R)$	C
TnueduRR_1121	$(\bar{ u}_{eL}\sigma^{\mu u}e_R)(\bar{s}_L\sigma_{\mu u}u_R)$	C
VnueduLL_2121	$(ar{ u}_{\mu L} \gamma^{\mu} e_L) (ar{s}_L \gamma_{\mu} u_L)$	\mathbf{C}
VnueduLR_2121	$(ar{ u}_{\mu L} \gamma^{\mu} e_L) (ar{s}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_2121	$(ar{ u}_{\mu L}e_R)(ar{s}_Ru_L)$	\mathbf{C}
SnueduRR_2121	$(ar{ u}_{\mu L}e_R)(ar{s}_Lu_R)$	C
TnueduRR_2121	$(\bar{ u}_{\mu L}\sigma^{\mu u}e_R)(\bar{s}_L\sigma_{\mu u}u_R)$	C
VnueduLL_3121	$(ar{ u}_{ au L} \gamma^{\mu} e_L) (ar{s}_L \gamma_{\mu} u_L)$	C
VnueduLR_3121	$(ar{ u}_{ au L} \gamma^{\mu} e_L) (ar{s}_R \gamma_{\mu} u_R)$	C
SnueduRL_3121	$(\bar{ u}_{ au L} e_R)(\bar{s}_R u_L)$	C
SnueduRR_3121	$(ar{ u}_{ au L} e_R)(ar{s}_L u_R)$	C
TnueduRR_3121	$(ar{ u}_{ au L} \sigma^{\mu u} e_R) (ar{s}_L \sigma_{\mu u} u_R)$	C

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WC name	Operator	Type
VnueduLL_1221	$(\bar{\nu}_{eL}\gamma^{\mu}\mu_{L})(\bar{s}_{L}\gamma_{\mu}u_{L})$	\overline{C}
VnueduLR_1221	$(\bar{\nu}_{eL}\gamma^{\mu}\mu_L)(\bar{s}_R\gamma_{\mu}u_R)$	\mathbf{C}
SnueduRL_1221	$(ar{ u}_{eL}\mu_R)(ar{s}_Ru_L)$	\mathbf{C}
SnueduRR_1221	$(\bar{ u}_{eL}\mu_R)(\bar{s}_Lu_R)$	\mathbf{C}
TnueduRR_1221	$(ar{ u}_{eL}\sigma^{\mu u}\mu_R)(ar{s}_L\sigma_{\mu u}u_R)$	\mathbf{C}
VnueduLL_2221	$(\bar{ u}_{\mu L} \gamma^{\mu} \mu_L) (\bar{s}_L \gamma_{\mu} u_L)$	\mathbf{C}
VnueduLR_2221	$(\bar{ u}_{\mu L} \gamma^{\mu} \mu_L)(\bar{s}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_2221	$(ar{ u}_{\mu L}\mu_R)(ar{s}_R u_L)$	\mathbf{C}
SnueduRR_2221	$(ar{ u}_{\mu L}\mu_R)(ar{s}_L u_R)$	\mathbf{C}
TnueduRR_2221	$(\bar{ u}_{\mu L}\sigma^{\mu u}\mu_R)(\bar{s}_L\sigma_{\mu u}u_R)$	\mathbf{C}
VnueduLL_3221	$(\bar{ u}_{ au L} \gamma^{\mu} \mu_L) (\bar{s}_L \gamma_{\mu} u_L)$	\mathbf{C}
VnueduLR_3221	$(\bar{\nu}_{\tau L} \gamma^{\mu} \mu_L)(\bar{s}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_3221	$(ar{ u}_{ au L} \mu_R)(ar{s}_R u_L)$	\mathbf{C}
SnueduRR_3221	$(ar{ u}_{ au L}\mu_R)(ar{s}_L u_R)$	\mathbf{C}
TnueduRR_3221	$(ar{ u}_{ au L} \sigma^{\mu u} \mu_R) (ar{s}_L \sigma_{\mu u} u_R)$	C

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WC name	Operator	Type
VnueduLL_1111	$(\bar{\nu}_{eL}\gamma^{\mu}e_L)(\bar{d}_L\gamma_{\mu}u_L)$	С
VnueduLR_1111	$(ar{ u}_{eL}\gamma^{\mu}e_L)(ar{d}_R\gamma_{\mu}u_R)$	\mathbf{C}
SnueduRL_1111	$(ar{ u}_{eL}e_R)(ar{d}_Ru_L)$	\mathbf{C}
SnueduRR_1111	$(ar{ u}_{eL}e_R)(ar{d}_Lu_R)$	\mathbf{C}
TnueduRR_1111	$(ar{ u}_{eL}\sigma^{\mu u}e_R)(ar{d}_L\sigma_{\mu u}u_R)$	$^{\mathrm{C}}$
VnueduLL_2111	$(ar{ u}_{\mu L} \gamma^{\mu} e_L) (ar{d}_L \gamma_{\mu} u_L)$	$^{\mathrm{C}}$
VnueduLR_2111	$(\bar{ u}_{\mu L} \gamma^{\mu} e_L) (\bar{d}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_2111	$(ar{ u}_{\mu L}e_R)(ar{d}_Ru_L)$	\mathbf{C}
SnueduRR_2111	$(ar{ u}_{\mu L} e_R)(ar{d}_L u_R)$	$^{\mathrm{C}}$
TnueduRR_2111	$(\bar{ u}_{\mu L}\sigma^{\mu u}e_R)(\bar{d}_L\sigma_{\mu u}u_R)$	\mathbf{C}
VnueduLL_3111	$(ar u_{ au L} \gamma^\mu e_L) (ar d_L \gamma_\mu u_L)$	\mathbf{C}
VnueduLR_3111	$(ar{ u}_{ au L} \gamma^{\mu} e_L) (ar{d}_R \gamma_{\mu} u_R)$	$^{\mathrm{C}}$
SnueduRL_3111	$(ar{ u}_{ au L}e_R)(ar{d}_Ru_L)$	\mathbf{C}
SnueduRR_3111	$(ar{ u}_{ au L} e_R) (ar{d}_L u_R)$	\mathbf{C}
TnueduRR_3111	$(\bar{ u}_{ au L}\sigma^{\mu u}e_R)(\bar{d}_L\sigma_{\mu u}u_R)$	C

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WC name	Operator	Type
VnueduLL_1211	$(ar{ u}_{eL}\gamma^{\mu}\mu_{L})(ar{d}_{L}\gamma_{\mu}u_{L})$	С
VnueduLR_1211	$(ar{ u}_{eL}\gamma^{\mu}\mu_{L})(ar{d}_{R}\gamma_{\mu}u_{R})$	\mathbf{C}
SnueduRL_1211	$(ar{ u}_{eL}\mu_R)(ar{d}_Ru_L)$	\mathbf{C}
SnueduRR_1211	$(ar u_{eL}\mu_R)(ar d_L u_R)$	\mathbf{C}
TnueduRR_1211	$(ar{ u}_{eL}\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}u_R)$	\mathbf{C}
VnueduLL_2211	$(ar u_{\mu L} \gamma^\mu \mu_L) (ar d_L \gamma_\mu u_L)$	\mathbf{C}
VnueduLR_2211	$(ar{ u}_{\mu L} \gamma^{\mu} \mu_L) (ar{d}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_2211	$(ar{ u}_{\mu L}\mu_R)(ar{d}_R u_L)$	\mathbf{C}
SnueduRR_2211	$(ar{ u}_{\mu L}\mu_R)(ar{d}_L u_R)$	\mathbf{C}
TnueduRR_2211	$(ar{ u}_{\mu L}\sigma^{\mu u}\mu_R)(ar{d}_L\sigma_{\mu u}u_R)$	\mathbf{C}
VnueduLL_3211	$(ar u_{ au L} \gamma^\mu \mu_L) (ar d_L \gamma_\mu u_L)$	\mathbf{C}
VnueduLR_3211	$(\bar{ u}_{\tau L} \gamma^{\mu} \mu_L) (\bar{d}_R \gamma_{\mu} u_R)$	\mathbf{C}
SnueduRL_3211	$(ar{ u}_{ au L} \mu_R)(ar{d}_R u_L)$	\mathbf{C}
SnueduRR_3211	$(ar u_{ au L}\mu_R)(ar d_L u_R)$	\mathbf{C}
TnueduRR_3211	$(ar{ u}_{ au L} \sigma^{\mu u} \mu_R) (ar{d}_L \sigma_{\mu u} u_R)$	С

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WC name	Operator	Type
VnudLL_1112	$(\bar{ u}_{eL}\gamma^{\mu} u_{eL})(\bar{d}_{L}\gamma_{\mu}s_{L})$	C
VnudLL_2212	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{d}_L \gamma_{\mu} s_L)$	\mathbf{C}
VnudLL_3312	$(ar u_{ au L} \gamma^\mu u_{ au L}) (ar d_L \gamma_\mu s_L)$	\mathbf{C}
VnudLR_1112	$(ar{ u}_{eL}\gamma^{\mu} u_{eL})(ar{d}_{R}\gamma_{\mu}s_{R})$	$^{\mathrm{C}}$
VnudLR_2212	$(ar{ u}_{\mu L} \gamma^{\mu} u_{\mu L}) (ar{d}_R \gamma_{\mu} s_R)$	\mathbf{C}
VnudLR_3312	$(ar u_{ au L} \gamma^\mu u_{ au L}) (ar d_R \gamma_\mu s_R)$	$^{\mathrm{C}}$
VnudLL_1221	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{s}_{L}\gamma_{\mu}d_{L})$	$^{\mathrm{C}}$
VnudLR_1221	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{s}_R\gamma_{\mu}d_R)$	\mathbf{C}
VnudLL_1321	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{s}_{L}\gamma_{\mu}d_{L})$	\mathbf{C}
VnudLR_1321	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{s}_{R}\gamma_{\mu}d_{R})$	\mathbf{C}
VnudLL_1212	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{d}_{L}\gamma_{\mu}s_{L})$	\mathbf{C}
VnudLR_1212	$(ar{ u}_{eL}\gamma^{\mu} u_{\mu L})(ar{d}_R\gamma_{\mu}s_R)$	\mathbf{C}
VnudLL_2321	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{s}_L \gamma_{\mu} d_L)$	\mathbf{C}
VnudLR_2321	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{s}_R \gamma_{\mu} d_R)$	\mathbf{C}
VnudLL_1312	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{d}_{L}\gamma_{\mu}s_{L})$	\mathbf{C}
VnudLR_1312	$(ar{ u}_{eL}\gamma^{\mu} u_{ au L})(ar{d}_{R}\gamma_{\mu}s_{R})$	\mathbf{C}
VnudLL_2312	$(ar{ u}_{\mu L} \gamma^{\mu} u_{ au L}) (ar{d}_L \gamma_{\mu} s_L)$	$^{\mathrm{C}}$
VnudLR_2312	$(\bar{ u}_{\mu L} \gamma^{\mu} u_{\tau L}) (\bar{d}_R \gamma_{\mu} s_R)$	C