

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

**sd**

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

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

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

#### sdemu

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

#### sdmue

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

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WC name	Operator	Type
egamma_12	$\bar{e}_L \sigma^{\mu\nu} \mu_R F_{\mu\nu}$	C
egamma_21	$\bar{\mu}_L \sigma^{\mu\nu} e_R F_{\mu\nu}$	C
VeeLL_1112	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_L \gamma_\mu \mu_L)$	C
VeeLL_1222	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_L \gamma_\mu \mu_L)$	C
VeuLL_1211	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{u}_L \gamma_\mu u_L)$	C
VedLL_1211	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{d}_L \gamma_\mu d_L)$	C
VedLL_1222	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{s}_L \gamma_\mu s_L)$	C
VeeRR_1112	$(\bar{e}_R \gamma^\mu e_R)(\bar{e}_R \gamma_\mu \mu_R)$	C
VeeRR_1222	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	C
VeuRR_1211	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{u}_R \gamma_\mu u_R)$	C
VedRR_1211	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{d}_R \gamma_\mu d_R)$	C
VedRR_1222	$(\bar{e}_R \gamma^\mu \mu_R)(\bar{s}_R \gamma_\mu s_R)$	C
VeeLR_1112	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
VeeLR_1211	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu e_R)$	C
VeeLR_1222	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	C
VeeLR_2212	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
VeuLR_1211	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{u}_R \gamma_\mu u_R)$	C
VedLR_1211	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{d}_R \gamma_\mu d_R)$	C
VedLR_1222	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{s}_R \gamma_\mu s_R)$	C
VueLR_1112	$(\bar{u}_L \gamma^\mu u_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
VdeLR_1112	$(\bar{d}_L \gamma^\mu d_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
VdeLR_2212	$(\bar{s}_L \gamma^\mu s_L)(\bar{e}_R \gamma_\mu \mu_R)$	C
SeuRL_1211	$(\bar{e}_L \mu_R)(\bar{u}_R u_L)$	C
SeuRL_2111	$(\bar{\mu}_L e_R)(\bar{u}_R u_L)$	C
SedRL_1211	$(\bar{e}_L \mu_R)(\bar{d}_R d_L)$	C
SedRL_1222	$(\bar{e}_L \mu_R)(\bar{s}_R s_L)$	C
SedRL_2111	$(\bar{\mu}_L e_R)(\bar{d}_R d_L)$	C
SedRL_2122	$(\bar{\mu}_L e_R)(\bar{s}_R s_L)$	C
SeeRR_1112	$(\bar{e}_L e_R)(\bar{e}_L \mu_R)$	C
SeeRR_1121	$(\bar{e}_L e_R)(\bar{\mu}_L e_R)$	C
SeeRR_1222	$(\bar{e}_L \mu_R)(\bar{\mu}_L \mu_R)$	C
SeeRR_2122	$(\bar{\mu}_L e_R)(\bar{\mu}_L \mu_R)$	C
SeuRR_1211	$(\bar{e}_L \mu_R)(\bar{u}_L u_R)$	C
SeuRR_2111	$(\bar{\mu}_L e_R)(\bar{u}_L u_R)$	C
TeuRR_1211	$(\bar{e}_L \sigma^{\mu\nu} \mu_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	C
TeuRR_2111	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	C
SedRR_1211	$(\bar{e}_L \mu_R)(\bar{d}_L d_R)$	C
SedRR_1222	$(\bar{e}_L \mu_R)(\bar{s}_L s_R)$	C
SedRR_2111	$(\bar{\mu}_L e_R)(\bar{d}_L d_R)$	C
SedRR_2122	$(\bar{\mu}_L e_R)(\bar{s}_L s_R)$	C
TedRR_1211	$(\bar{e}_L \sigma^{\mu\nu} \mu_R)(\bar{d}_L \sigma_{\mu\nu} d_R)$	C

WC name	Operator	Type
TedRR_1222	$(\bar{e}_L \sigma^{\mu\nu} \mu_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	C
TedRR_2111	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{d}_L \sigma_{\mu\nu} d_R)$	C
TedRR_2122	$(\bar{\mu}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	C

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

**nunununu**

WC name	Operator	Type
VnunuLL_1111	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{eL} \gamma_\mu \nu_{eL})$	R
VnunuLL_1122	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\mu L})$	R
VnunuLL_1133	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	R
VnunuLL_2222	$(\bar{\nu}_{\mu L} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\mu L})$	R
VnunuLL_2233	$(\bar{\nu}_{\mu L} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	R
VnunuLL_3333	$(\bar{\nu}_{\tau L} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	R
VnunuLL_1112	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{eL} \gamma_\mu \nu_{\mu L})$	C
VnunuLL_1222	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\mu L})$	C
VnunuLL_1233	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1113	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{eL} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1223	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1333	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1123	$(\bar{\nu}_{eL} \gamma^\mu \nu_{eL})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_2223	$(\bar{\nu}_{\mu L} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_2333	$(\bar{\nu}_{\mu L} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1232	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{\tau L} \gamma_\mu \nu_{\mu L})$	C
VnunuLL_1323	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1213	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{eL} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_1212	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\mu L})(\bar{\nu}_{eL} \gamma_\mu \nu_{\mu L})$	C
VnunuLL_1313	$(\bar{\nu}_{eL} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{eL} \gamma_\mu \nu_{\tau L})$	C
VnunuLL_2323	$(\bar{\nu}_{\mu L} \gamma^\mu \nu_{\tau L})(\bar{\nu}_{\mu L} \gamma_\mu \nu_{\tau L})$	C

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WC name	Operator	Type
VnueLL_1112	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLL_2212	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLL_3312	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLR_1112	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{e}_R\gamma_\mu\mu_R)$	C
VnueLR_2212	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{e}_R\gamma_\mu\mu_R)$	C
VnueLR_3312	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{e}_R\gamma_\mu\mu_R)$	C
VnueLL_1212	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLR_1212	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{e}_R\gamma_\mu\mu_R)$	C
VnueLL_1312	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLR_1312	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{e}_R\gamma_\mu\mu_R)$	C
VnueLL_2321	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{\mu}_L\gamma_\mu e_L)$	C
VnueLR_2321	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{\mu}_R\gamma_\mu e_R)$	C
VnueLL_1221	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{\mu}_L\gamma_\mu e_L)$	C
VnueLR_1221	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{\mu}_R\gamma_\mu e_R)$	C
VnueLL_1321	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{\mu}_L\gamma_\mu e_L)$	C
VnueLR_1321	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{\mu}_R\gamma_\mu e_R)$	C
VnueLL_2312	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu\mu_L)$	C
VnueLR_2312	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{e}_R\gamma_\mu\mu_R)$	C

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WC name	Operator	Type
egamma_11	$\bar{e}_L\sigma^{\mu\nu}e_R F_{\mu\nu}$	C
egamma_22	$\bar{\mu}_L\sigma^{\mu\nu}\mu_R F_{\mu\nu}$	C
ugamma_11	$\bar{u}_L\sigma^{\mu\nu}u_R F_{\mu\nu}$	C
dgamma_11	$\bar{d}_L\sigma^{\mu\nu}d_R F_{\mu\nu}$	C
dgamma_22	$\bar{s}_L\sigma^{\mu\nu}s_R F_{\mu\nu}$	C
uG_11	$\bar{u}_L\sigma^{\mu\nu}T^A u_R G_{\mu\nu}^A$	C
dG_11	$\bar{d}_L\sigma^{\mu\nu}T^A d_R G_{\mu\nu}^A$	C
dG_22	$\bar{s}_L\sigma^{\mu\nu}T^A s_R G_{\mu\nu}^A$	C
G	$f^{ABC}G_\mu^{A\nu}G_\nu^{B\rho}G_\rho^{C\mu}$	R
Gtilde	$f^{ABC}\tilde{G}_\mu^{A\nu}G_\nu^{B\rho}G_\rho^{C\mu}$	R
VeeLL_1111	$(\bar{e}_L\gamma^\mu e_L)(\bar{e}_L\gamma_\mu e_L)$	R
VeeLL_1122	$(\bar{e}_L\gamma^\mu e_L)(\bar{\mu}_L\gamma_\mu\mu_L)$	R
VeeLL_2222	$(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{\mu}_L\gamma_\mu\mu_L)$	R
VeuLL_1111	$(\bar{e}_L\gamma^\mu e_L)(\bar{u}_L\gamma_\mu u_L)$	R
VeuLL_2211	$(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{u}_L\gamma_\mu u_L)$	R
VedLL_1111	$(\bar{e}_L\gamma^\mu e_L)(\bar{d}_L\gamma_\mu d_L)$	R
VedLL_1122	$(\bar{e}_L\gamma^\mu e_L)(\bar{s}_L\gamma_\mu s_L)$	R
VedLL_2211	$(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{d}_L\gamma_\mu d_L)$	R
VedLL_2222	$(\bar{\mu}_L\gamma^\mu\mu_L)(\bar{s}_L\gamma_\mu s_L)$	R
VuuLL_1111	$(\bar{u}_L\gamma^\mu u_L)(\bar{u}_L\gamma_\mu u_L)$	R

WC name	Operator	Type
VddLL_1111	$(\bar{d}_L \gamma^\mu d_L)(\bar{d}_L \gamma_\mu d_L)$	R
VddLL_1122	$(\bar{d}_L \gamma^\mu d_L)(\bar{s}_L \gamma_\mu s_L)$	R
VddLL_1221	$(\bar{d}_L \gamma^\mu s_L)(\bar{s}_L \gamma_\mu d_L)$	R
VddLL_2222	$(\bar{s}_L \gamma^\mu s_L)(\bar{s}_L \gamma_\mu s_L)$	R
V1udLL_1111	$(\bar{u}_L \gamma^\mu u_L)(\bar{d}_L \gamma_\mu d_L)$	R
V1udLL_1122	$(\bar{u}_L \gamma^\mu u_L)(\bar{s}_L \gamma_\mu s_L)$	R
V8udLL_1111	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{d}_L \gamma_\mu T^A d_L)$	R
V8udLL_1122	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{s}_L \gamma_\mu T^A s_L)$	R
VeeRR_1111	$(\bar{e}_R \gamma^\mu e_R)(\bar{e}_R \gamma_\mu e_R)$	R
VeeRR_1122	$(\bar{e}_R \gamma^\mu e_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VeeRR_2222	$(\bar{\mu}_R \gamma^\mu \mu_R)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VeRR_1111	$(\bar{e}_R \gamma^\mu e_R)(\bar{u}_R \gamma_\mu u_R)$	R
VeRR_2211	$(\bar{\mu}_R \gamma^\mu \mu_R)(\bar{u}_R \gamma_\mu u_R)$	R
VedRR_1111	$(\bar{e}_R \gamma^\mu e_R)(\bar{d}_R \gamma_\mu d_R)$	R
VedRR_1122	$(\bar{e}_R \gamma^\mu e_R)(\bar{s}_R \gamma_\mu s_R)$	R
VedRR_2211	$(\bar{\mu}_R \gamma^\mu \mu_R)(\bar{d}_R \gamma_\mu d_R)$	R
VedRR_2222	$(\bar{\mu}_R \gamma^\mu \mu_R)(\bar{s}_R \gamma_\mu s_R)$	R
VuuRR_1111	$(\bar{u}_R \gamma^\mu u_R)(\bar{u}_R \gamma_\mu u_R)$	R
VddRR_1111	$(\bar{d}_R \gamma^\mu d_R)(\bar{d}_R \gamma_\mu d_R)$	R
VddRR_1122	$(\bar{d}_R \gamma^\mu d_R)(\bar{s}_R \gamma_\mu s_R)$	R
VddRR_1221	$(\bar{d}_R \gamma^\mu s_R)(\bar{s}_R \gamma_\mu d_R)$	R
VddRR_2222	$(\bar{s}_R \gamma^\mu s_R)(\bar{s}_R \gamma_\mu s_R)$	R
V1udRR_1111	$(\bar{u}_R \gamma^\mu u_R)(\bar{d}_R \gamma_\mu d_R)$	R
V1udRR_1122	$(\bar{u}_R \gamma^\mu u_R)(\bar{s}_R \gamma_\mu s_R)$	R
V8udRR_1111	$(\bar{u}_R \gamma^\mu T^A u_R)(\bar{d}_R \gamma_\mu T^A d_R)$	R
V8udRR_1122	$(\bar{u}_R \gamma^\mu T^A u_R)(\bar{s}_R \gamma_\mu T^A s_R)$	R
VeeLR_1111	$(\bar{e}_L \gamma^\mu e_L)(\bar{e}_R \gamma_\mu e_R)$	R
VeeLR_1122	$(\bar{e}_L \gamma^\mu e_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VeeLR_1221	$(\bar{e}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu e_R)$	C
VeeLR_2211	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{e}_R \gamma_\mu e_R)$	R
VeeLR_2222	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VeLR_1111	$(\bar{e}_L \gamma^\mu e_L)(\bar{u}_R \gamma_\mu u_R)$	R
VeLR_2211	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{u}_R \gamma_\mu u_R)$	R
VedLR_1111	$(\bar{e}_L \gamma^\mu e_L)(\bar{d}_R \gamma_\mu d_R)$	R
VedLR_1122	$(\bar{e}_L \gamma^\mu e_L)(\bar{s}_R \gamma_\mu s_R)$	R
VedLR_2211	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{d}_R \gamma_\mu d_R)$	R
VedLR_2222	$(\bar{\mu}_L \gamma^\mu \mu_L)(\bar{s}_R \gamma_\mu s_R)$	R
VueLR_1111	$(\bar{u}_L \gamma^\mu u_L)(\bar{e}_R \gamma_\mu e_R)$	R
VueLR_1122	$(\bar{u}_L \gamma^\mu u_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VdeLR_1111	$(\bar{d}_L \gamma^\mu d_L)(\bar{e}_R \gamma_\mu e_R)$	R
VdeLR_1122	$(\bar{d}_L \gamma^\mu d_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	R
VdeLR_2211	$(\bar{s}_L \gamma^\mu s_L)(\bar{e}_R \gamma_\mu e_R)$	R
VdeLR_2222	$(\bar{s}_L \gamma^\mu s_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	R

WC name	Operator	Type
V1uuLR_1111	$(\bar{u}_L \gamma^\mu u_L)(\bar{u}_R \gamma_\mu u_R)$	R
V8uuLR_1111	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{u}_R \gamma_\mu T^A u_R)$	R
V1udLR_1111	$(\bar{u}_L \gamma^\mu u_L)(\bar{d}_R \gamma_\mu d_R)$	R
V1udLR_1122	$(\bar{u}_L \gamma^\mu u_L)(\bar{s}_R \gamma_\mu s_R)$	R
V8udLR_1111	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{d}_R \gamma_\mu T^A d_R)$	R
V8udLR_1122	$(\bar{u}_L \gamma^\mu T^A u_L)(\bar{s}_R \gamma_\mu T^A s_R)$	R
V1duLR_1111	$(\bar{d}_L \gamma^\mu d_L)(\bar{u}_R \gamma_\mu u_R)$	R
V1duLR_2211	$(\bar{s}_L \gamma^\mu s_L)(\bar{u}_R \gamma_\mu u_R)$	R
V8duLR_1111	$(\bar{d}_L \gamma^\mu T^A d_L)(\bar{u}_R \gamma_\mu T^A u_R)$	R
V8duLR_2211	$(\bar{s}_L \gamma^\mu T^A s_L)(\bar{u}_R \gamma_\mu T^A u_R)$	R
V1ddLR_1111	$(\bar{d}_L \gamma^\mu d_L)(\bar{d}_R \gamma_\mu d_R)$	R
V1ddLR_1122	$(\bar{d}_L \gamma^\mu d_L)(\bar{s}_R \gamma_\mu s_R)$	R
V1ddLR_1221	$(\bar{d}_L \gamma^\mu s_L)(\bar{s}_R \gamma_\mu d_R)$	C
V1ddLR_2211	$(\bar{s}_L \gamma^\mu s_L)(\bar{d}_R \gamma_\mu d_R)$	R
V1ddLR_2222	$(\bar{s}_L \gamma^\mu s_L)(\bar{s}_R \gamma_\mu s_R)$	R
V8ddLR_1111	$(\bar{d}_L \gamma^\mu T^A d_L)(\bar{d}_R \gamma_\mu T^A d_R)$	R
V8ddLR_1122	$(\bar{d}_L \gamma^\mu T^A d_L)(\bar{s}_R \gamma_\mu T^A s_R)$	R
V8ddLR_1221	$(\bar{d}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A d_R)$	C
V8ddLR_2211	$(\bar{s}_L \gamma^\mu T^A s_L)(\bar{d}_R \gamma_\mu T^A d_R)$	R
V8ddLR_2222	$(\bar{s}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A s_R)$	R
V1udduLR_1111	$(\bar{u}_L \gamma^\mu d_L)(\bar{d}_R \gamma_\mu u_R)$	C
V1udduLR_1221	$(\bar{u}_L \gamma^\mu s_L)(\bar{s}_R \gamma_\mu u_R)$	C
V8udduLR_1111	$(\bar{u}_L \gamma^\mu T^A d_L)(\bar{d}_R \gamma_\mu T^A u_R)$	C
V8udduLR_1221	$(\bar{u}_L \gamma^\mu T^A s_L)(\bar{s}_R \gamma_\mu T^A u_R)$	C
SeuRL_1111	$(\bar{e}_L e_R)(\bar{u}_R u_L)$	C
SeuRL_2211	$(\bar{\mu}_L \mu_R)(\bar{u}_R u_L)$	C
SedRL_1111	$(\bar{e}_L e_R)(\bar{d}_R d_L)$	C
SedRL_1122	$(\bar{e}_L e_R)(\bar{s}_R s_L)$	C
SedRL_2211	$(\bar{\mu}_L \mu_R)(\bar{d}_R d_L)$	C
SedRL_2222	$(\bar{\mu}_L \mu_R)(\bar{s}_R s_L)$	C
SeeRR_1111	$(\bar{e}_L e_R)(\bar{e}_L e_R)$	C
SeeRR_1122	$(\bar{e}_L e_R)(\bar{\mu}_L \mu_R)$	C
SeeRR_1221	$(\bar{e}_L \mu_R)(\bar{\mu}_L e_R)$	C
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	$(\bar{e}_L \sigma^{\mu\nu} e_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	C
TeuRR_2211	$(\bar{\mu}_L \sigma^{\mu\nu} \mu_R)(\bar{u}_L \sigma_{\mu\nu} u_R)$	C
SedRR_1111	$(\bar{e}_L e_R)(\bar{d}_L d_R)$	C
SedRR_1122	$(\bar{e}_L e_R)(\bar{s}_L s_R)$	C
SedRR_2211	$(\bar{\mu}_L \mu_R)(\bar{d}_L d_R)$	C
SedRR_2222	$(\bar{\mu}_L \mu_R)(\bar{s}_L s_R)$	C
TedRR_1111	$(\bar{e}_L \sigma^{\mu\nu} e_R)(\bar{d}_L \sigma_{\mu\nu} d_R)$	C



WC name	Operator	Type
TedRR_1122	$(\bar{e}_L \sigma^{\mu\nu} e_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	C
TedRR_2211	$(\bar{\mu}_L \sigma^{\mu\nu} \mu_R)(\bar{d}_L \sigma_{\mu\nu} d_R)$	C
TedRR_2222	$(\bar{\mu}_L \sigma^{\mu\nu} \mu_R)(\bar{s}_L \sigma_{\mu\nu} s_R)$	C
S1uuRR_1111	$(\bar{u}_L u_R)(\bar{u}_L u_R)$	C
S8uuRR_1111	$(\bar{u}_L T^A u_R)(\bar{u}_L T^A u_R)$	C
S1udRR_1111	$(\bar{u}_L u_R)(\bar{d}_L d_R)$	C
S1udRR_1122	$(\bar{u}_L u_R)(\bar{s}_L s_R)$	C
S8udRR_1111	$(\bar{u}_L T^A u_R)(\bar{d}_L T^A d_R)$	C
S8udRR_1122	$(\bar{u}_L T^A u_R)(\bar{s}_L T^A s_R)$	C
S1ddRR_1111	$(\bar{d}_L d_R)(\bar{d}_L d_R)$	C
S1ddRR_1122	$(\bar{d}_L d_R)(\bar{s}_L s_R)$	C
S1ddRR_1221	$(\bar{d}_L s_R)(\bar{s}_L d_R)$	C
S1ddRR_2222	$(\bar{s}_L s_R)(\bar{s}_L s_R)$	C
S8ddRR_1111	$(\bar{d}_L T^A d_R)(\bar{d}_L T^A d_R)$	C
S8ddRR_1122	$(\bar{d}_L T^A d_R)(\bar{s}_L T^A s_R)$	C
S8ddRR_1221	$(\bar{d}_L T^A s_R)(\bar{s}_L T^A d_R)$	C
S8ddRR_2222	$(\bar{s}_L T^A s_R)(\bar{s}_L T^A s_R)$	C
S1udduRR_1111	$(\bar{u}_L d_R)(\bar{d}_L u_R)$	C
S1udduRR_1221	$(\bar{u}_L s_R)(\bar{s}_L u_R)$	C
S8udduRR_1111	$(\bar{u}_L T^A d_R)(\bar{d}_L T^A u_R)$	C
S8udduRR_1221	$(\bar{u}_L T^A s_R)(\bar{s}_L T^A u_R)$	C

#### usenu

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

**usmunu**

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

**udenu**

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

**udmunu**

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

#### sdnunu

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

#### ffnunu

WC name	Operator	Type
VnueLL_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{e}_L\gamma_\mu e_L)$	R
VnueLL_1122	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{\mu}_L\gamma_\mu\mu_L)$	R
VnueLL_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{e}_L\gamma_\mu e_L)$	R
VnueLL_2222	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{\mu}_L\gamma_\mu\mu_L)$	R
VnueLL_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu e_L)$	R
VnueLL_3322	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{\mu}_L\gamma_\mu\mu_L)$	R
VnuuLL_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{u}_L\gamma_\mu u_L)$	R
VnuuLL_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{u}_L\gamma_\mu u_L)$	R
VnuuLL_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{u}_L\gamma_\mu u_L)$	R
VnudLL_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{d}_L\gamma_\mu d_L)$	R
VnudLL_1122	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{s}_L\gamma_\mu s_L)$	R
VnudLL_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{d}_L\gamma_\mu d_L)$	R
VnudLL_2222	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{s}_L\gamma_\mu s_L)$	R
VnudLL_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{d}_L\gamma_\mu d_L)$	R
VnudLL_3322	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{s}_L\gamma_\mu s_L)$	R
VnueLR_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{e}_R\gamma_\mu e_R)$	R
VnueLR_1122	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{\mu}_R\gamma_\mu\mu_R)$	R
VnueLR_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{e}_R\gamma_\mu e_R)$	R
VnueLR_2222	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{\mu}_R\gamma_\mu\mu_R)$	R
VnueLR_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{e}_R\gamma_\mu e_R)$	R
VnueLR_3322	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{\mu}_R\gamma_\mu\mu_R)$	R
VnuuLR_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{u}_R\gamma_\mu u_R)$	R
VnuuLR_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{u}_R\gamma_\mu u_R)$	R
VnuuLR_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{u}_R\gamma_\mu u_R)$	R
VnudLR_1111	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{d}_R\gamma_\mu d_R)$	R
VnudLR_1122	$(\bar{\nu}_{eL}\gamma^\mu\nu_{eL})(\bar{s}_R\gamma_\mu s_R)$	R
VnudLR_2211	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{d}_R\gamma_\mu d_R)$	R
VnudLR_2222	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\mu L})(\bar{s}_R\gamma_\mu s_R)$	R
VnudLR_3311	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{d}_R\gamma_\mu d_R)$	R
VnudLR_3322	$(\bar{\nu}_{\tau L}\gamma^\mu\nu_{\tau L})(\bar{s}_R\gamma_\mu s_R)$	R
VnueLL_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{e}_L\gamma_\mu e_L)$	C
VnueLL_1222	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{\mu}_L\gamma_\mu\mu_L)$	C
VnuuLL_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{u}_L\gamma_\mu u_L)$	C
VnudLL_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{d}_L\gamma_\mu d_L)$	C
VnudLL_1222	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{s}_L\gamma_\mu s_L)$	C
VnueLR_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{e}_R\gamma_\mu e_R)$	C
VnueLR_1222	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{\mu}_R\gamma_\mu\mu_R)$	C
VnuuLR_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{u}_R\gamma_\mu u_R)$	C
VnudLR_1211	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{d}_R\gamma_\mu d_R)$	C
VnudLR_1222	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\mu L})(\bar{s}_R\gamma_\mu s_R)$	C
VnueLL_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu e_L)$	C
VnueLL_1322	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{\mu}_L\gamma_\mu\mu_L)$	C
VnuuLL_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{u}_L\gamma_\mu u_L)$	C
VnudLL_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{d}_L\gamma_\mu d_L)$	C

WC name	Operator	Type
VnudLL_1322	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{s}_L\gamma_\mu s_L)$	C
VnueLR_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{e}_R\gamma_\mu e_R)$	C
VnueLR_1322	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{\mu}_R\gamma_\mu\mu_R)$	C
VnuuLR_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{u}_R\gamma_\mu u_R)$	C
VnudLR_1311	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{d}_R\gamma_\mu d_R)$	C
VnudLR_1322	$(\bar{\nu}_{eL}\gamma^\mu\nu_{\tau L})(\bar{s}_R\gamma_\mu s_R)$	C
VnueLL_2311	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{e}_L\gamma_\mu e_L)$	C
VnueLL_2322	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{\mu}_L\gamma_\mu\mu_L)$	C
VnuuLL_2311	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{u}_L\gamma_\mu u_L)$	C
VnudLL_2311	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{d}_L\gamma_\mu d_L)$	C
VnudLL_2322	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{s}_L\gamma_\mu s_L)$	C
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	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{d}_R\gamma_\mu d_R)$	C
VnudLR_2322	$(\bar{\nu}_{\mu L}\gamma^\mu\nu_{\tau L})(\bar{s}_R\gamma_\mu s_R)$	C

#### uddnu

WC name	Operator	Type
SdudRL_1111	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{eL})$	C
SdudRL_1112	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{\mu L})$	C
SdudRL_1113	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{\tau L})$	C
SuddLL_1111	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T}Cd_L^\beta)(d_L^{\gamma T}C\nu_{eL})$	C
SuddLL_1112	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T}Cd_L^\beta)(d_L^{\gamma T}C\nu_{\mu L})$	C
SuddLL_1113	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T}Cd_L^\beta)(d_L^{\gamma T}C\nu_{\tau L})$	C

#### udsnu

WC name	Operator	Type
SdduRL_1211	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cs_R^\beta)(u_L^{\gamma T}C\nu_{eL})$	C
SdduRL_1212	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cs_R^\beta)(u_L^{\gamma T}C\nu_{\mu L})$	C
SdduRL_1213	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cs_R^\beta)(u_L^{\gamma T}C\nu_{\tau L})$	C
SdudRL_1121	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(s_L^{\gamma T}C\nu_{eL})$	C
SdudRL_1122	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(s_L^{\gamma T}C\nu_{\mu L})$	C
SdudRL_1123	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T}Cu_R^\beta)(s_L^{\gamma T}C\nu_{\tau L})$	C
SdudRL_2111	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{eL})$	C
SdudRL_2112	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{\mu L})$	C
SdudRL_2113	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T}Cu_R^\beta)(d_L^{\gamma T}C\nu_{\tau L})$	C

WC name	Operator	Type
SuddLL_1121	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C d_L^\beta)(s_L^{\gamma T} C \nu_{eL})$	C
SuddLL_1122	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C d_L^\beta)(s_L^{\gamma T} C \nu_{\mu L})$	C
SuddLL_1123	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C d_L^\beta)(s_L^{\gamma T} C \nu_{\tau L})$	C
SuddLL_1211	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(d_L^{\gamma T} C \nu_{eL})$	C
SuddLL_1212	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(d_L^{\gamma T} C \nu_{\mu L})$	C
SuddLL_1213	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(d_L^{\gamma T} C \nu_{\tau L})$	C

**ussnu**

WC name	Operator	Type
SdudRL_2121	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} C u_R^\beta)(s_L^{\gamma T} C \nu_{eL})$	C
SdudRL_2122	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} C u_R^\beta)(s_L^{\gamma T} C \nu_{\mu L})$	C
SdudRL_2123	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} C u_R^\beta)(s_L^{\gamma T} C \nu_{\tau L})$	C
SuddLL_1221	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(s_L^{\gamma T} C \nu_{eL})$	C
SuddLL_1222	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(s_L^{\gamma T} C \nu_{\mu L})$	C
SuddLL_1223	$\epsilon_{\alpha\beta\gamma}(u_L^{\alpha T} C s_L^\beta)(s_L^{\gamma T} C \nu_{\tau L})$	C

**uude**

WC name	Operator	Type
SduuLL_1111	$\epsilon_{\alpha\beta\gamma}(d_L^{\alpha T} C u_L^\beta)(u_L^{\gamma T} C e_L)$	C
SduuLR_1111	$\epsilon_{\alpha\beta\gamma}(d_L^{\alpha T} C u_L^\beta)(u_R^{\gamma T} C e_R)$	C
SduuRL_1111	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T} C u_R^\beta)(u_L^{\gamma T} C e_L)$	C
SduuRR_1111	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T} C u_R^\beta)(u_R^{\gamma T} C e_R)$	C

**uudmu**

WC name	Operator	Type
SduuLL_1112	$\epsilon_{\alpha\beta\gamma}(d_L^{\alpha T} C u_L^\beta)(u_L^{\gamma T} C \mu_L)$	C
SduuLR_1112	$\epsilon_{\alpha\beta\gamma}(d_L^{\alpha T} C u_L^\beta)(u_R^{\gamma T} C \mu_R)$	C
SduuRL_1112	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T} C u_R^\beta)(u_L^{\gamma T} C \mu_L)$	C
SduuRR_1112	$\epsilon_{\alpha\beta\gamma}(d_R^{\alpha T} C u_R^\beta)(u_R^{\gamma T} C \mu_R)$	C

**uuse**

WC name	Operator	Type
SduuLL_2111	$\epsilon_{\alpha\beta\gamma}(s_L^{\alpha T} Cu_L^\beta)(u_L^{\gamma T} Ce_L)$	C
SduuLR_2111	$\epsilon_{\alpha\beta\gamma}(s_L^{\alpha T} Cu_L^\beta)(u_R^{\gamma T} Ce_R)$	C
SduuRL_2111	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} Cu_R^\beta)(u_L^{\gamma T} Ce_L)$	C
SduuRR_2111	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} Cu_R^\beta)(u_R^{\gamma T} Ce_R)$	C

**uusmu**

WC name	Operator	Type
SduuLL_2112	$\epsilon_{\alpha\beta\gamma}(s_L^{\alpha T} Cu_L^\beta)(u_L^{\gamma T} C\mu_L)$	C
SduuLR_2112	$\epsilon_{\alpha\beta\gamma}(s_L^{\alpha T} Cu_L^\beta)(u_R^{\gamma T} C\mu_R)$	C
SduuRL_2112	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} Cu_R^\beta)(u_L^{\gamma T} C\mu_L)$	C
SduuRR_2112	$\epsilon_{\alpha\beta\gamma}(s_R^{\alpha T} Cu_R^\beta)(u_R^{\gamma T} C\mu_R)$	C