Basis formflavor (EFT WET)

Basis used by the FormFlavor package

Sectors

The effective Lagrangian is defined as

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

sbsb

WC name	Operator	Type
CVLL_bsbs	$(\bar{s}_L \gamma^\mu b_L)(\bar{s}_L \gamma_\mu b_L)$	С
CVRR_bsbs	$(\bar{s}_R \gamma^\mu b_R)(\bar{s}_R \gamma_\mu b_R)$	\mathbf{C}
CSLL_bsbs	$(\bar{s}_R b_L)(\bar{s}_R b_L)$	\mathbf{C}
CSRR_bsbs	$(\bar{s}_L b_R)(\bar{s}_L b_R)$	\mathbf{C}
CTLL_bsbs	$(\bar{s}_R \sigma^{\mu\nu} b_L)(\bar{s}_R \sigma_{\mu\nu} b_L)$	\mathbf{C}
CTRR_bsbs	$(\bar{s}_L \sigma^{\mu\nu} b_R)(\bar{s}_L \sigma_{\mu\nu} b_R)$	\mathbf{C}
CVLR_bsbs	$(\bar{s}_L \gamma^\mu b_L)(\bar{s}_R \gamma_\mu b_R)$	\mathbf{C}
CSLR_bsbs	$(ar{s}_R b_L)(ar{s}_L b_R)$	\mathbf{C}

dbdb

WC name	Operator	Type
CVLL_bdbd	$(\bar{d}_L \gamma^\mu b_L)(\bar{d}_L \gamma_\mu b_L)$	С
CVRR_bdbd	$(ar{d}_R \gamma^\mu b_R) (ar{d}_R \gamma_\mu b_R)$	\mathbf{C}
CSLL_bdbd	$(ar{d}_R b_L)(ar{d}_R b_L)$	\mathbf{C}
CSRR_bdbd	$(ar{d}_L b_R)(ar{d}_L b_R)$	\mathbf{C}
CTLL_bdbd	$(\bar{d}_R \sigma^{\mu\nu} b_L)(\bar{d}_R \sigma_{\mu\nu} b_L)$	\mathbf{C}
CTRR_bdbd	$(\bar{d}_L \sigma^{\mu\nu} b_R)(\bar{d}_L \sigma_{\mu\nu} b_R)$	\mathbf{C}
CVLR_bdbd	$(\bar{d}_L \gamma^\mu b_L)(\bar{d}_R \gamma_\mu b_R)$	\mathbf{C}
CSLR_bdbd	$(ar{d}_R b_L)(ar{d}_L b_R)$	\mathbf{C}

sdsd

WC name	Operator	Type
CVLL sdsd	$(\bar{d}_L \gamma^\mu s_L)(\bar{d}_L \gamma_\mu s_L)$	$^{\rm C}$

WC name	Operator	Type
CVRR_sdsd	$(\bar{d}_R \gamma^\mu s_R)(\bar{d}_R \gamma_\mu s_R)$	С
CSLL_sdsd	$(ar{d}_R s_L)(ar{d}_R s_L)$	\mathbf{C}
CSRR_sdsd	$(ar{d}_L s_R)(ar{d}_L s_R)$	\mathbf{C}
CTLL_sdsd	$(\bar{d}_R \sigma^{\mu\nu} s_L)(\bar{d}_R \sigma_{\mu\nu} s_L)$	\mathbf{C}
CTRR_sdsd	$(\bar{d}_L \sigma^{\mu\nu} s_R)(\bar{d}_L \sigma_{\mu\nu} s_R)$	\mathbf{C}
CVLR_sdsd	$(\bar{d}_L \gamma^\mu s_L)(\bar{d}_R \gamma_\mu s_R)$	\mathbf{C}
CSLR_sdsd	$(ar{d}_R s_L)(ar{d}_L s_R)$	\mathbf{C}

cucu

WC name	Operator	Type
CVLL_cucu	$(\bar{u}_L \gamma^\mu c_L)(\bar{u}_L \gamma_\mu c_L)$	С
CVRR_cucu	$(\bar{u}_R \gamma^\mu c_R)(\bar{u}_R \gamma_\mu c_R)$	\mathbf{C}
CSLL_cucu	$(\bar{u}_R c_L)(\bar{u}_R c_L)$	\mathbf{C}
CSRR_cucu	$(\bar{u}_L c_R)(\bar{u}_L c_R)$	\mathbf{C}
CTLL_cucu	$(\bar{u}_R \sigma^{\mu\nu} c_L)(\bar{u}_R \sigma_{\mu\nu} c_L)$	\mathbf{C}
CTRR_cucu	$(\bar{u}_L \sigma^{\mu\nu} c_R)(\bar{u}_L \sigma_{\mu\nu} c_R)$	\mathbf{C}
CVLR_cucu	$(\bar{u}_L \gamma^\mu c_L)(\bar{u}_R \gamma_\mu c_R)$	\mathbf{C}
CSLR_cucu	$(\bar{u}_R c_L)(\bar{u}_L c_R)$	\mathbf{C}

sb

WC name	Operator	Type
CVLL_bsmm	$(ar{s}_L\gamma^\mu b_L)(ar{\mu}_L\gamma_\mu\mu_L)$	C
CVRR_bsmm	$(ar{s}_R \gamma^\mu b_R)(ar{\mu}_R \gamma_\mu \mu_R)$	\mathbf{C}
CVLR_bsmm	$(\bar{s}_L \gamma^\mu b_L)(\bar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVRL_bsmm	$(ar{s}_R \gamma^\mu b_R)(ar{\mu}_L \gamma_\mu \mu_L)$	\mathbf{C}
CSLL_bsmm	$(ar{s}_R b_L)(ar{\mu}_R \mu_L)$	\mathbf{C}
CSRR_bsmm	$(ar{s}_L b_R)(ar{\mu}_L \mu_R)$	\mathbf{C}
CSLR_bsmm	$(ar{s}_R b_L)(ar{\mu}_L \mu_R)$	\mathbf{C}
CSRL_bsmm	$(ar{s}_L b_R)(ar{\mu}_R \mu_L)$	\mathbf{C}
CTLL_bsmm	$(ar{s}_R \sigma^{\mu u} b_L) (ar{\mu}_R \sigma_{\mu u} \mu_L)$	\mathbf{C}
CTRR_bsmm	$(ar{s}_L\sigma^{\mu u}b_R)(ar{\mu}_L\sigma_{\mu u}\mu_R)$	\mathbf{C}
CAR_sb	$e(\bar{s}_L\sigma^{\mu\nu}b_R)F_{\mu\nu}$	\mathbf{C}
CAL_sb	$e(\bar{s}_R \sigma^{\mu\nu} b_L) F_{\mu\nu}$	\mathbf{C}
CGR_sb	$g_s(\bar{s}_L\sigma^{\mu\nu}b_R)G_{\mu\nu}$	\mathbf{C}
CGL_sb	$g_s(ar{s}_R\sigma^{\mu u}b_L)G_{\mu u}$	$^{\mathrm{C}}$

db

WC name	Operator	Type
CVLL_bdmm	$(ar{d}_L\gamma^\mu b_L)(ar{\mu}_L\gamma_\mu\mu_L)$	C
CVRR_bdmm	$(ar{d}_R \gamma^\mu b_R) (ar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVLR_bdmm	$(ar{d}_L \gamma^\mu b_L) (ar{\mu}_R \gamma_\mu \mu_R)$	$^{\mathrm{C}}$
CVRL_bdmm	$(ar{d}_R \gamma^\mu b_R) (ar{\mu}_L \gamma_\mu \mu_L)$	$^{\mathrm{C}}$
CSLL_bdmm	$(ar{d}_R b_L)(ar{\mu}_R \mu_L)$	$^{\mathrm{C}}$
CSRR_bdmm	$(ar{d}_L b_R)(ar{\mu}_L \mu_R)$	$^{\mathrm{C}}$
CSLR_bdmm	$(ar{d}_R b_L)(ar{\mu}_L \mu_R)$	\mathbf{C}
CSRL_bdmm	$(ar{d}_L b_R)(ar{\mu}_R \mu_L)$	$^{\mathrm{C}}$
CTLL_bdmm	$(ar{d}_R\sigma^{\mu u}b_L)(ar{\mu}_R\sigma_{\mu u}\mu_L)$	$^{\mathrm{C}}$
CTRR_bdmm	$(ar{d}_L\sigma^{\mu u}b_R)(ar{\mu}_L\sigma_{\mu u}\mu_R)$	$^{\mathrm{C}}$
CAR_db	$e(\bar{d}_L\sigma^{\mu\nu}b_R)F_{\mu\nu}$	$^{\mathrm{C}}$
CAL_db	$e(\bar{d}_R\sigma^{\mu u}b_L)F_{\mu u}$	$^{\mathrm{C}}$
CGR_db	$g_s(\bar{d}_L\sigma^{\mu u}b_R)G_{\mu u}$	\mathbf{C}
CGL_db	$g_s(ar{d}_R\sigma^{\mu u}b_L)G_{\mu u}$	С

sdnunu

WC name	Operator	Type
CVLL_sdnn	$(\bar{d}_L \gamma^\mu s_L)(\bar{\nu}_L \gamma_\mu \nu_L)$	С
$\mathtt{CVRL_sdnn}$	$(\bar{d}_R \gamma^\mu s_R)(\bar{\nu}_L \gamma_\mu \nu_L)$	С

dF=0

WC name	Operator	Type
CAR_dd	$e(\bar{d}_L\sigma^{\mu\nu}d_R)F_{\mu\nu}$	С
CAL_dd	$e(\bar{d}_R\sigma^{\mu\nu}d_L)F_{\mu\nu}$	\mathbf{C}
CGR_dd	$g_s(\bar{d}_L\sigma^{\mu\nu}d_R)G_{\mu\nu}$	\mathbf{C}
CGL_dd	$g_s(\bar{d}_R\sigma^{\mu\nu}d_L)G_{\mu\nu}$	\mathbf{C}
CAR_uu	$e(\bar{u}_L\sigma^{\mu\nu}u_R)F_{\mu\nu}$	$^{\mathrm{C}}$
CAL_uu	$e(\bar{u}_R \sigma^{\mu\nu} u_L) F_{\mu\nu}$	\mathbf{C}
CGR_uu	$g_s(\bar{u}_L\sigma^{\mu\nu}u_R)G_{\mu\nu}$	\mathbf{C}
CGL_uu	$g_s(\bar{u}_R\sigma^{\mu\nu}u_L)G_{\mu\nu}$	С

mue

WC name	Operator	Type
CAR_em	$e(\bar{e}_L\sigma^{\mu\nu}\mu_R)F_{\mu\nu}$	С
CAL_em	$e(\bar{e}_R\sigma^{\mu\nu}\mu_L)F_{\mu\nu}$	\mathbf{C}

mutau

WC name	Operator	Type
CAR_mt	$e(\bar{\mu}_L \sigma^{\mu\nu} \tau_R) F_{\mu\nu}$	С
CAL_mt	$e(\bar{\mu}_R \sigma^{\mu\nu} \tau_L) F_{\mu\nu}$	\mathbf{C}

taue

WC name	Operator	Type
CAR_et	$e(\bar{e}_L\sigma^{\mu\nu}\tau_R)F_{\mu\nu}$	С
CAL_et	$e(\bar{e}_R\sigma^{\mu\nu}\tau_L)F_{\mu\nu}$	\mathbf{C}