

Process	Details	Generator	k-factor (order)	# Events
$\gamma$ +Jets		PYTHIA6	1.3 (NLO)	$1.6 \cdot 10^6$
W+Jets		MADGRAPH	1.21 (NNLO)	$6.0 \cdot 10^7$
	$M_{l^{\pm}\nu} > 200$ GeV	MADGRAPH	1.21 (NNLO)	$1.2 \cdot 10^6$
	$H_T > 150$ GeV	MADGRAPH	1.21 (NNLO)	$4.3 \cdot 10^7$
	$Wbb \rightarrow l^{\pm}\nu bb$	MADGRAPH	1.79 (NLO)	$2.0 \cdot 10^7$
Drell-Yan	$M_{l^{\pm}l^{\pm}} > 10$ GeV	MADGRAPH	1.2 (NNLO)	$6.0 \cdot 10^7$
	$p_T(Z) > 50$ GeV	MADGRAPH	1.0 (LO)	$3.8 \cdot 10^8$
	$M_{l^{\pm}l^{\pm}} > 200$ GeV	POWHEG	1.02 (NNLO)	$2.2 \cdot 10^6$
	Z+Jets $\rightarrow \nu\nu$	MADGRAPH	1.0 (LO)	$3.0 \cdot 10^7$
Multi-Boson	$\gamma\gamma$	PYTHIA6	1.0 (LO)	$7.7 \cdot 10^6$
	WW	PYTHIA6	1.63 (NLO)	$1.0 \cdot 10^7$
	$W^{\pm}W^{\pm}$	MADGRAPH	1.0 (LO)	$1.8 \cdot 10^5$
	WW via DPS	PYTHIA6	1.0 (LO)	$8.0 \cdot 10^5$
	$gg \rightarrow WW$	gg2VV	1.4 (NLO)	$1.0 \cdot 10^5$
	$ZZ \rightarrow 4l^{\pm}$	POWHEG	1.0 (NLO)	$1.5 \cdot 10^7$
	$ZZ \rightarrow 2l^{\pm}2q, 2l^{\pm}2\nu, 2q2\nu$	MADGRAPH	1.0 (LO)	$2.7 \cdot 10^6$
	$gg \rightarrow ZZ$	gg2VV	1.0 (NLO)	$9.0 \cdot 10^5$
	WZ	MADGRAPH	1.0 (LO)	$7.9 \cdot 10^6$
	$V\gamma$	MADGRAPH	1.2 (NLO)	$1.0 \cdot 10^7$
	WWW	MADGRAPH	0.98 (NLO)	$2.0 \cdot 10^5$
	ZZZ	MADGRAPH	1.2 (NLO)	$2.0 \cdot 10^5$
	WWZ	MADGRAPH	0.92 (NLO)	$2.0 \cdot 10^5$
	WZZ	MADGRAPH	1.02 (NLO)	$2.0 \cdot 10^5$
	WW $\gamma$	MADGRAPH	1.0 (LO)	$5.0 \cdot 10^5$
	W $\gamma\gamma$	MADGRAPH	1.0 (LO)	$2.0 \cdot 10^6$
Multi-Jet		PYTHIA6	1.0 (LO)	$4.5 \cdot 10^8$
Single Top		POWHEG	1.04-1.34 (NNLL)	$5.2 \cdot 10^6$
$t\bar{t}$		POWHEG	1.0 (NNLO)	$2.6 \cdot 10^7$
	$t\bar{t}$ ( $M_{t\bar{t}} > 700$ GeV)	POWHEG	1.11 (NNLO)	$4.0 \cdot 10^6$
	$t\bar{t}\gamma$	MADGRAPH	1.0 (LO)	$1.0 \cdot 10^6$
	$t\bar{t}W$	MADGRAPH	1.08 (NLO)	$1.0 \cdot 10^5$
	$t\bar{t}Z$	MADGRAPH	1.2 (NLO)	$2.0 \cdot 10^5$
	$t\bar{t}WW$	MADGRAPH	1.0 (LO)	$2.0 \cdot 10^5$
$t\bar{t}\bar{t}$		MADGRAPH	1.28 (NLO)	$9.0 \cdot 10^4$
Higgs	$gg \rightarrow ZZ$	MiNLO	1.0 (NLO)	$8.0 \cdot 10^5$
	$gg \rightarrow bb, \gamma\gamma, \tau\tau, Z\gamma, WW$	POWHEG	1.0 (NLO)	$2.6 \cdot 10^6$
	$VBF \rightarrow bb, \gamma\gamma, \tau\tau, Z\gamma, VV$	POWHEG	1.0 (NLO)	$2.5 \cdot 10^6$
	$WH \rightarrow \mu\mu, bb$	POWHEG	1.0 (NLO)	$1.1 \cdot 10^6$
	$ZH \rightarrow \mu\mu, bb$	POWHEG	1.0 (NLO)	$2.9 \cdot 10^6$
	$TTH \rightarrow bb, \gamma\gamma, Z\gamma$	PYTHIA6	1.0 (NLO)	$1.2 \cdot 10^6$
	$WH, ZH \rightarrow \gamma\gamma, Z\gamma$	PYTHIA6	1.0 (NLO)	$1.1 \cdot 10^6$
	$WH, ZH, TTH \rightarrow \tau\tau, VV$	PYTHIA6	1.0 (NLO)	$9.0 \cdot 10^5$
Upsilon	$Y(1S)/Y(2S)/Y(3S) \rightarrow \mu\mu$	EVTGEN	1.0 (LO)	$5.0 \cdot 10^6$