

Matrix element generator	Simulated diagrams	PDF set	Tune
PYTHIA8.219 [15]	$2 \rightarrow 2$ (LO)	NNPDF2.3LO [26, 27]	CUETP8M1 [25]
HERWIG++ 2.7.1 [21]	$2 \rightarrow 2$ (LO)	CTEQ6L1 [28]	CUETHppS1 [25]
MADGRAPH5 2.3.3 [29] + PYTHIA8.219 [15]	$2 \rightarrow 2, 2 \rightarrow 3, 2 \rightarrow 4$ (LO)	NNPDF2.3LO [26, 27]	CUETP8M1 [25]
POWHEG V2.Sep2016 [31–33] + PYTHIA8.219 [15]	$2 \rightarrow 2$ (NLO), $2 \rightarrow 3$ (LO)	NNPDF3.0nlo [37]	CUETP8M1 [25]
POWHEG V2.Sep2016 [31–33] + HERWIG++ 2.7.1 [21]	$2 \rightarrow 2$ (NLO), $2 \rightarrow 3$ (LO)	NNPDF3.0nlo [37]	CUETHppS1 [25]
POWHEG V2.Sep2016 [31–33] + PYTHIA8.219 [15]	$2 \rightarrow 3$ (NLO), $2 \rightarrow 4$ (LO)	NNPDF3.0nlo [37]	CUETP8M1 [25]
HERWIG7.0.4 [34]	$2 \rightarrow 2$ (LO)	MMHT2014 [38]	H7-UE-MMHT [34]