	Physics	Precision	Interfaces	Hard Process	Underlying Event	ISR	FSR	Hadronization	Decays	Code	Features
ACER MC	single top, tt, bb	LO / final state partons		X	Pythia or Herwig					Fortran 77	Efficient/fast generation of unweighted events; dedicated to SM bkg processes
AlpGEN	W+jets	LO / final state partons		X	Pythia or Herwig					Fortran 77	Final states with large multiplicities, heavy flavor
AMEGIC++	SM, MSSM ADD extra dim	LO / final state partons		X	Sherpa (APACIC++)			Pythia		C++	Component of SHERPA (CKKW matching); not good for SUSY
APACIC++						q-ordered (virtual mass)				C++	Similar to Pythia; different IR cut-off for parton shower; not standalone (used in Sherpa)
ARIADNE						Linked dipole chain	Color Dipole Model			Fortran 77	Called from Pythia
DPEMC	Higgs from gluon fusion			X	Herwig					Fortran 77	Extended from POMWIG
EVTGEN	B decays		PHOTOS		Pythia				X	C++	Resonance decays, incl correlated angular distributions
ExHuME	Higgs from gluon fusion	NLO		X	Pythia					C++	
HERWIG	QCD 2 --> 2, EW γ/Z/W/H, SUSY MSSM, Higgs, RPV Exotics, top, Drell-Yan	LO / final state partons	ISAJET TAUOLA B decays	X	UA5 (built-in) or Jimmy (+MPI)	angular-ordered		cluster	X	Fortran 77	General purpose; spin corr in resonant decays
Herwig++	same as Herwig	LO / final state partons	ThePEG	X	X	(q, z); inherently ang ordered; better for heavy flavor		cluster (better)	X	C++	All C++, new parton shower, better cluster hadronization model
HORACE	Drell-Yan, EW one loop	NLO	PHOTOS	X	Pythia					Fortran 77	
ISAJET ISASUGRA	SM 2 --> 2, SUSY	LO / final state partons		X	simplified AKG model	Sjostrand backward shower	Fox-Wolfram	modified Field-Feynman model	X	Fortran 77	General purpose; includes ISASUSY w/ SUSY branching fractions; rudimentary hadronization
JIMMY				Herwig	MPI	Herwig				Fortran 77	replaces UA5 model; current
MadEvent/ MadGraph	any process	LO / final state partons		X	Pythia or Herwig					Fortran 77	SM, limited to 10000 diagrams / subprocess; will take proton input; graphical output
MC@NLO	Di-boson tt	NLO		X	Herwig					Fortran 77	NLO matrix element; events w/negative weights
PHOJET	Elastic, Diffractive Min bias			X	AKG	Sjostrand backward shower	Pythia			Fortran 77	Detailed modeling of min bias, "bell bottoms"
PHOTOS	QED Brem corrections								X	Fortran 77	General bremsstrahlung corrections
PYTHIA	QCD 2 --> 2, EW γ/Z/W/H, SUSY 2H doublets, sfermion/gaugino pairs, RPV Exotics	LO / final state partons	ARIADNE PHOTOS TAUOLA	X	color-connected	Sjostrand backward shower, interleaved w/ MPI	p_T ordered	Lund string model + Bowler model for heavy quarks	X	Fortran 77, moving to C++ in 8	General purpose; combined with JETSET
SHERPA	SM, MSSM ADD extra dim	NLO		AMEGIC++		CKKW matching, APACIC++		Pythia		C++	General purpose; independent of Pythia, Herwig
TAUOLA	τ decays		PHOTOS		Pythia or Herwig				X	Fortran 77	Tau decays, incl spin polarization
VECBOS	W/Z+jets	LO / final state partons		X						Fortran 77	Analytic tree-level amplitudes, vector boson/decay fermion correlations built in