Table 1: List of JEC uncertainty sources, grouped by categories, with numbering, a short description, and range of validity in $|\eta|$.

Source	#	Description	Range
Pileup			
PileUpDataMC	01	Data vs MC simulation offset with random cone (RC) method	$\|\eta\| < 5.2$
PileUpPtRef	02	True offset vs RC $\otimes$ absolute p_T	$\|\eta\| < 5.2$
PileUpPtBB	03	True offset vs RC $\otimes$ relative η	$\|\eta\| < 1.3$
PileUpPtEC1	04	True offset vs RC $\otimes$ relative η	$1.3 < \|\eta\| < 2.5$
PileUpPtEC2	05	True offset vs RC $\otimes$ relative η	$2.5 < \|\eta\| < 3.0$
PileUpPtHF	06	True offset vs RC $\otimes$ relative η	$3.0 < \|\eta\| < 5.2$
(alternative source)			
PileupMuZero	02-06b	True offset vs RC $\otimes$ residual JES for $\langle\mu\rangle = 0$	$\|\eta\| < 5.2$
(benchmark source)			
PileUpEnvelope	02-06c	True offset vs RC $\times$ 60%	$\|\eta\| < 5.2$
Relative JES (vs η)			
RelativeJEREC1	07	Jet p_T resolution	$1.3 < \|\eta\| < 2.5$
RelativeJEREC2	08	Jet p_T resolution	$2.5 < \|\eta\| < 3.0$
RelativeJERHF	09	Jet p_T resolution	$3.0 < \|\eta\| < 5.2$
RelativeFSR	10	ISR+FSR correction	$\|\eta\| < 5.2$
RelativeStatFSR	11	ISR+FSR statistical uncertainty	$\|\eta\| < 5.2$
RelativeStatEC2	12	Statistical uncertainty	$2.5 < \|\eta\| < 3.0$
RelativeStatHF	13	Statistical uncertainty	$3.0 < \|\eta\| < 5.2$
RelativePtBB	14	Log-lin. vs flat fit $\times$ 50%	$\|\eta\| < 1.3$
RelativePtEC1	15	Log-lin. vs flat fit $\times$ 50%	$1.3 < \|\eta\| < 2.5$
RelativePtEC2	16	Log-lin. vs flat fit $\times$ 50%	$2.5 < \|\eta\| < 3.0$
RelativePtHF	17	Log-lin. vs flat fit $\times$ 50%	$3.0 < \|\eta\| < 5.2$
TimeEta	18	Relative η time dependence	$\|\eta\| < 5.2$
Absolute JES (vs p_T)			
AbsoluteScale	19	Lepton scale, $\pm$0.11%	$\|\eta\| < 5.2$
AbsoluteMPFBias	20	MPF bias, $\pm$0.28% (from ν's $\oplus$ ISR acceptance, 0.2% $\oplus$ 0.2%)	$\|\eta\| < 5.2$
AbsoluteStat	21	Statistical uncertainty vs p_T	$\|\eta\| < 5.2$
SinglePionECAL	22	Single pion response in ECAL, $\pm$4.2%	$\|\eta\| < 5.2$
SinglePionHCAL	23	Single pion response in HCAL, $\pm$1.5%	$\|\eta\| < 5.2$
Fragmentation	24	Jet fragmentation in Pythia6 vs Herwig++	$\|\eta\| < 5.2$
TimePt	25	Absolute p_T time dependence (indirectly with charged pion E_{HCAL}/p)	$\|\eta\| < 5.2$
Jet flavor (only one of these)			
FlavorQCD	26a	QCD dijet mixture (default)	$\|\eta\| < 5.2$
FlavorZJet	26b	Z+jet mixture	$\|\eta\| < 5.2$
FlavorPhoton	26c	γ+jet mixture	$\|\eta\| < 5.2$
(or mixture of these)			
FlavorGluon	26d1	Pure gluon (g) (incl. $g \to q\bar{q}$ and unmatched)	$\|\eta\| < 5.2$
FlavorQuark	26d2	Pure light quark (uds)	$\|\eta\| < 5.2$
FlavorCharm	26d3	Pure charm (c)	$\|\eta\| < 5.2$
FlavorBottom	26d4	Pure bottom (b) (Pure flavors refer to the *Physics* definition)	$\|\eta\| < 5.2$