PYTHIA 8 parameter	CP1 [13]	CP1-CR1	CP1-CR2
PDF set	NNPDF3.1 LO	NNPDF3.1 LO	NNPDF3.1 LO
$\alpha_S(m_Z)$	0.130	0.130	0.130
SpaceShower:rapidityOrder	off	off	off
MultipartonInteractions:ecmRef [GeV]	7000	7000	7000
$\alpha_S^{ISR}(m_Z)$ value/order	0.1365/LO	0.1365/LO	0.1365/LO
$\alpha_S^{FSR}(m_Z)$ value/order	0.1365/LO	0.1365/LO	0.1365/LO
$\alpha_S^{MPI}(m_Z)$ value/order	0.130/LO	0.130/LO	0.130/LO
$\alpha_S^{ME}(m_Z)$ value/order	0.130/LO	0.130/LO	0.130/LO
StringZ:aLund	—	0.38	—
StringZ:bLund	—	0.64	—
StringFlav:probQQtoQ	—	0.078	—
StringFlav:probStoUD	—	0.2	—
SigmaTotal:zeroAXB	off	off	off
BeamRemnants:remnantMode	—	1	—
MultipartonInteractions:bProfile	2	2	2
ColourReconnection:mode	—	1	2
MultipartonInteractions:pT0Ref [GeV]	2.400	1.984	2.385
MultipartonInteractions:ecmPow	0.154	0.113	0.165
MultipartonInteractions:coreRadius	0.544	0.746	0.587
MultipartonInteractions:coreFraction	0.684	0.569	0.533
ColourReconnection:range	2.633	—	—
ColourReconnection:junctionCorrection	—	8.382	—
ColourReconnection:timeDilationPar	—	31.070	—
ColourReconnection:m0	—	1.845	—
ColourReconnection:m2lambda	—	—	2.769
ColourReconnection:fracGluon	—	—	0.979
N_{dof}	183	157	150
χ^{*2}/N_{dof}	0.89	0.73	0.20