PYTHIA8 parameter	CP3	CP4	CP5
PDF Set	NNPDF3.1 NLO	NNPDF3.1 NNLO	NNPDF3.1 NNLO
$\alpha_S(m_Z)$	0.118	0.118	0.118
SpaceShower:rapidityOrder	off	off	on
MultipartonInteractions:EcmRef [GeV]	7000	7000	7000
$\alpha_S^{\text{ISR}}(m_Z)$ value/order	0.118/NLO	0.118/NLO	0.118/NLO
$\alpha_S^{\text{FSR}}(m_Z)$ value/order	0.118/NLO	0.118/NLO	0.118/NLO
$\alpha_S^{\text{MPI}}(m_Z)$ value/order	0.118/NLO	0.118/NLO	0.118/NLO
$\alpha_S^{\text{ME}}(m_Z)$ value/order	0.118/NLO	0.118/NLO	0.118/NLO
MultipartonInteractions:pT0Ref [GeV]	1.52	1.48	1.41
MultipartonInteractions:ecmPow	0.02	0.02	0.03
MultipartonInteractions:coreRadius	0.54	0.60	0.76
MultipartonInteractions:coreFraction	0.39	0.30	0.63
ColorReconnection:range	4.73	5.61	5.18
χ^2/dof	0.76	0.80	1.04