Parameter table I

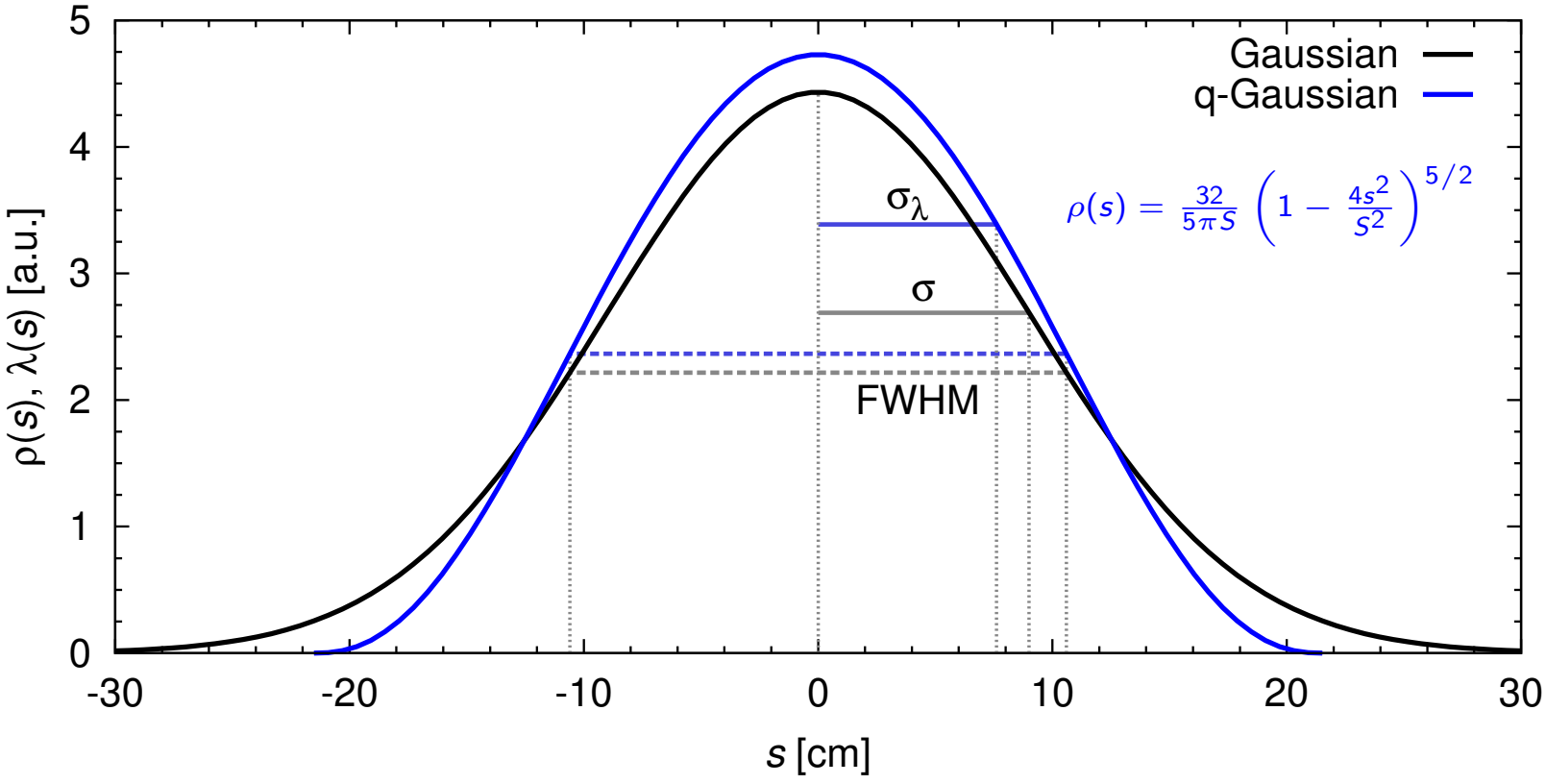
†q-Gaussian, see slide 3

	Base	BCMS	8b4e
E [TeV]	7	7	7
N_b [10^{11}]	2.2	2.20	2.2
n_b	2760	2748	1972
IP1&5 colls	2748	2736	1967
N_{tot} [10^{14}]	6.1	6.0	4.3
Beam current [A]	1.10	1.10	0.79
x-sing angle [μrad]	500	500	470
beam separation [σ]	10.5	10.5	10.5
β^* [m]	0.15	0.15	0.15
ϵ_n [μm]	2.5	2.5	2.2
ϵ_L [eV s]	3.03	3.03	3.03
r.m.s. energy spread [10^{-4}]	1.29	1.29	1.29
r.m.s. bunch length† [cm]	7.61	7.61	7.61
IBS horizontal [h]	19.6	19.6	15.0
IBS longitudinal [h]	29.9	29.9	25.7
Piwinski parameter	2.66	2.66	2.66

Parameter table II

	Base	BCMS	8b4e
Loss factor no CC	0.342	0.342	0.342
Loss factor with CC	0.716	0.716	0.749
Beam-beam no CC [10^{-3}]	3.3	3.3	3.7
Beam-beam / IP with CC [10^{-3}]	8.6	8.6	11
Peak lumi. no CC [$\mathrm{cm}^{-2}\mathrm{s}^{-1}10^{34}$]	8.11	8.07	6.59
Virtual lumi. w CC [$\mathrm{cm}^{-2}\mathrm{s}^{-1}10^{35}$]	1.70	1.69	1.44
Pile-up without CC	212	212	241
Levelled luminosity [$\mathrm{cm}^{-2}\mathrm{s}^{-1}10^{34}$]	5.00	5.00	3.82
Pile-up with lev CC	131	132	140
Peak pile-up density [events/mm]	1.30	1.30	1.31
Levelling time [h]	7.4	7.3	7.2
Number of collisions in IP2/IP8	2494/2572	2258/2374	1178/1886
N_b at LHC injection [10^{11}]	2.30	2.30	2.30
n_b / injection	288	288	224
N_tot / injection [10^{13}]	6.62	6.62	5.15
ϵ_n at SPS extraction [μm]	2.1	1.7	1.7

q-Gaussian longitudinal bunch profile



For $\sigma = 9\mathrm{cm}$ ($4\sigma = 1.2\mathrm{ns}$): rms $\sigma_\lambda = 7.6\mathrm{cm}$, FWHM $= 21.2\mathrm{cm}$.