

HL-LHC v1.6. E = 7.0 TeV.  $N_b \simeq 2.3 \times 10^{11}$  ppb,

$L_{1/5} = 2.43 \times 10^{34} \text{cm}^{-2}\text{s}^{-1}$ ,  $L_2 = 1.55 \times 10^{30} \text{cm}^{-2}\text{s}^{-1}$ ,  $L_8 = 1.55 \times 10^{33} \text{cm}^{-2}\text{s}^{-1}$

PU<sub>1/5</sub> = 89.2,  $\beta_{y,1}^* = 0.7$  m,  $\beta_{x,1}^* = 2.8$  m, polarity IP<sub>2/8</sub> = 1/1

$\Phi/2_{1(H)} = 250 \mu\text{rad}$ ,  $\Phi/2_{5(V)} = 250 \mu\text{rad}$ ,  $\Phi/2_{2,V} = -170 \mu\text{rad}$ ,  $\Phi/2_{8,V} = 170 \mu\text{rad}$

$\sigma_z = 7.61$  cm,  $\epsilon_n = 2.0 \mu\text{m}$ ,  $Q' = 15$ ,  $C^- = 0.001$

8b4e\_1972b\_1960\_1178\_1886\_224bpi\_12inj. Bunch 89.

