run III (2023). E = 6.8 TeV.  $N_b \simeq 1.4 \times 10^{11} ppb$ ,  $L = 2 \times 10^{34} cm^{-2} s^{-1}$ .  $\beta_{x \text{ IP1}}^* = 0.485 \text{ m}, \ \beta_{y \text{ IP1}}^* = 0.485 \text{ m}, \ \Phi/2_{\text{IP1(V)}} = 149 \mu \text{rad}, \ \Phi/2_{\text{IP5(H)}} = 149 \mu \text{rad}$  $\Phi/2_{\text{IP2}}$  v = 200 µrad,  $\Phi/2_{\text{IP8}}$  v = 200 µrad, polarityIP<sub>2/8</sub> = 1/1  $\sigma_z = 9.0 \text{ cm} \epsilon_n = 2.2 \text{ } \mu\text{m}, \text{ Q}' = 15.0, \text{ I}_{MO} = 300.0 \text{ A}, \text{ C}^- = 0.0$ 25ns\_2464b\_2452\_1842\_1821\_236bpi\_12inj. Bunch 411. 6302 6302 630 631 6313 6312 6312 6312 6310 635 635 6535 60.329 60.327 -8.0 - 7.5 - 7.0 60.323 -- 6.5 © 60.321 -- 6.0 - 5.5 - Winimum DA 60.319 -60.317 -60.315 -- 4.0 60.313 -60.311 -60.309

Vertical tune Q<sub>v</sub>

Horizontal tune Q<sub>x</sub>