Run III (2024) (ions). E = 6.8 Z TeV.  $N_b \simeq 1.8 \times 10^8 \text{ ppb}$ ,  $L_{1/5} = 6.402 \times 10^{27} \text{ cm}^{-2} \text{ s}^{-1}, L_2 = 6.403 \times 10^{27} \text{ cm}^{-2} \text{ s}^{-1}, L_8 = 9.825 \times 10^{26} \text{ cm}^{-2} \text{ s}^{-1}$  $\beta_{x \text{ IP1}}^* = 0.5 \text{ m}, \, \beta_{y \text{ IP1}}^* = 0.5 \text{ m}, \, \text{polarity IP}_{2/8} = 1/1$  $\Phi/2_{\text{IP1(V)}} = 130 \,\mu\text{rad}, \,\Phi/2_{\text{IP5(H)}} = 130 \,\mu\text{rad}, \,\Phi/2_{\text{IP2 V}} = -130 \,\mu\text{rad}, \,\Phi/2_{\text{IP8 H}} = -235 \,\mu\text{rad}$  $\sigma_z = 8.24 \text{ cm}, \ \varepsilon_n = 2.2 \ \mu\text{m}, \ Q' = 10.0, \ I_{MO} = 100.0 \ A, \ C^- = 0.001$ 50ns\_1240b\_1088\_1088\_398\_56bpi\_PbPb\_converted.json. Bunch 488. 60.329 -60.327 -60.325 -60.323 -60.321 -105 60.319 -60.317 -60.315 -10.5 60.313 -60.311 -60.309 -60.307 -60.305

Horizontal tune Q<sub>x</sub>

Vertical tune Q<sub>y</sub>