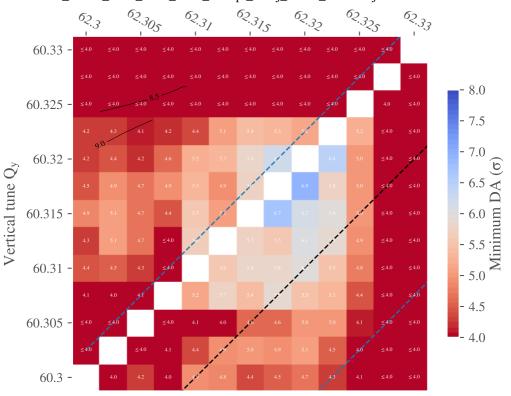
HL-LHC v1.6. E = 7.0 TeV. CC = -190.0 μrad.  $N_b \simeq 1.14 \times 10^{11}$  ppb,  $L_{1/5} = 5.29 \times 10^{34} \text{cm}^{-2} \text{s}^{-1}, L_2 = 1.51 \times 10^{30} \text{cm}^{-2} \text{s}^{-1}, L_8 = 1.98 \times 10^{33} \text{cm}^{-2} \text{s}^{-1}$  PU<sub>1/5</sub> = 139,  $\beta_{x,1}^* = 0.15$  m,  $\beta_{y,1}^* = 0.15$  m, polarity IP<sub>2/8</sub> = 1/1 Φ/2<sub>1(H)</sub> = 250 μrad, Φ/2<sub>5(V)</sub> = 250 μrad, Φ/2<sub>2, V</sub> = -170 μrad, Φ/2<sub>8, V</sub> = 170 μrad  $\sigma_z = 7.61$  cm,  $\epsilon_n = 2.5$  μm,  $Q^{'} = 15$ ,  $I_{MO} = -300.0$  A,  $C^{-} = 0.001$  25ns\_2760b\_2748\_2492\_2574\_288bpi\_13inj\_800ns\_bs200ns.json. Bunch 150.



Horizontal tune Q<sub>x</sub>