HL-LHC v1.5. Flat optics. Start of levelling. CC ON. Bunch 1147.  $N_b \simeq 2.2 \times 10^{11} ppb$ ,  $\beta_{v,IP1}^* = 0.5$  m,  $\beta_{x,IP1}^* = 1$  m,  $\Phi/2_{IP1(H)/5(V)} = 250 \mu rad$ 

 $\sigma_z$  = 7.61 cm,  $\Phi/2_{IP8, V}$  = 170 μrad,  $ε_n$  = 2.5 μm, Q' = 5.0,  $I_{MO}$  = 410.0 A,  $C^-$  = 0.001 F. Scheme : 25ns\_2228b\_2216\_1686\_2112\_hybrid\_8b4e\_2x56b\_25ns\_3x48b\_12inj

