



## High- $\beta$ study

**High-beta MD at 1 km, 1 shift required (at least 1 week) before the 1km physics run**

**"Safe beams" 3 bunches of 1.e11 protons each beam**

**At flat top, de-squeeze to  $\beta^* = 1$  km in IP1 & 5**

- **precise  $\beta^*$  measurement with K-modulation**
- **move slowly primary collimators close to beam (ideally down to 3 real  $\sigma$ )**
- **roman pots to safe monitoring position**
- **check collimation hierarchy primary, secondaries, tertiaries**
- **determine minimum margin for secondaries for tolerable backgrounds**
- **check on possible influence of other (IP3 off momentum) collimators**
- **test scraping / retracting, repopulation**

Teams : optics team for K-modulation

presence of members from the collimation team and TOTEM+ATLAS for RPs

# Reserve

