

Run II Special Runs

1) TOTEM High beta, low luminosity

$\beta^*=90\text{m}$, $N_{\text{bunch}} \leq 100$, reduced bunch intensity, $\mu \sim \text{few } \%$, $L \sim 10^{28} - 10^{30} \text{ Hz/cm}^2$

RP approach 5-10 σ

2) TOTEM High beta, medium luminosity

$\beta^*=90\text{m}$, $N_{\text{bunch}} \sim 1000$, $\mu \sim 0.5$, $L \sim 10^{31} \text{ Hz/cm}^2$

RP approach 10-15 σ

Goals: 7 pb⁻¹/day

**Low pT CMS jets + TOTEM
for hard diffraction**

3) TOTEM Low beta

$\beta^*=0.6\text{m}$, $N_{\text{bunch}} \sim 2800$, $\mu \sim 30-50$, $L \sim 10^{33} - 10^{34} \text{ Hz/cm}^2$

RP approach 15 σ

**Q: Is a crossing
angle envisioned?**

ALFA:

- Can currently handle O(700) bunches, may be able to do O(900) *maximum*
 - *Very dependent on backgrounds.* To be taken as upper limits
- Maximum bunch intensity ALFA can handle under study.

DISCUSS:

- *Should such a running scenario be dedicated to TOTEM+CMS or can moderate concessions in running conditions allow for joint ALFA+ATLAS data taking without jeopardising the physics goals of the run?*