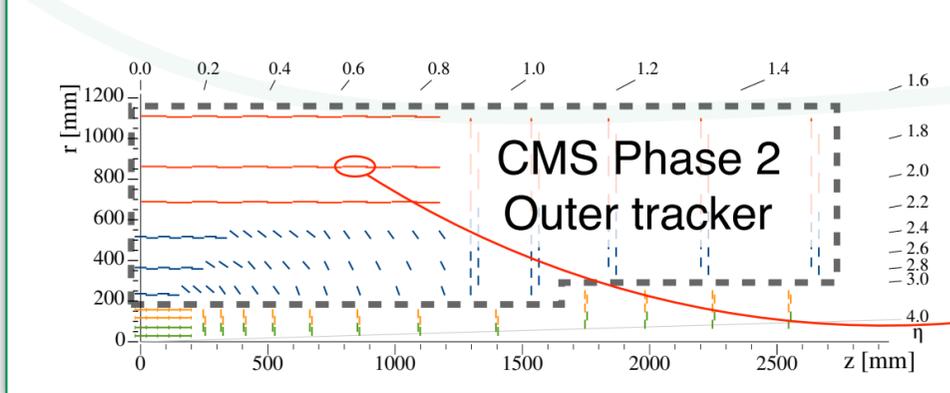


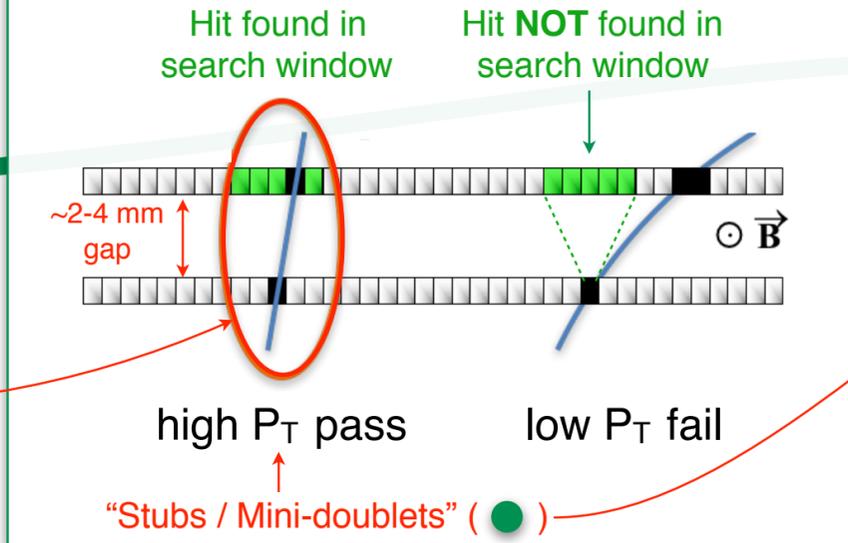
# Parallelizable Track Pattern Recognition in HL-LHC

Philip Chang, V. Krutelyov, M. Masciovecchio, B. Venkat Sathia Narayanan, M. Tadel, A. Yagil

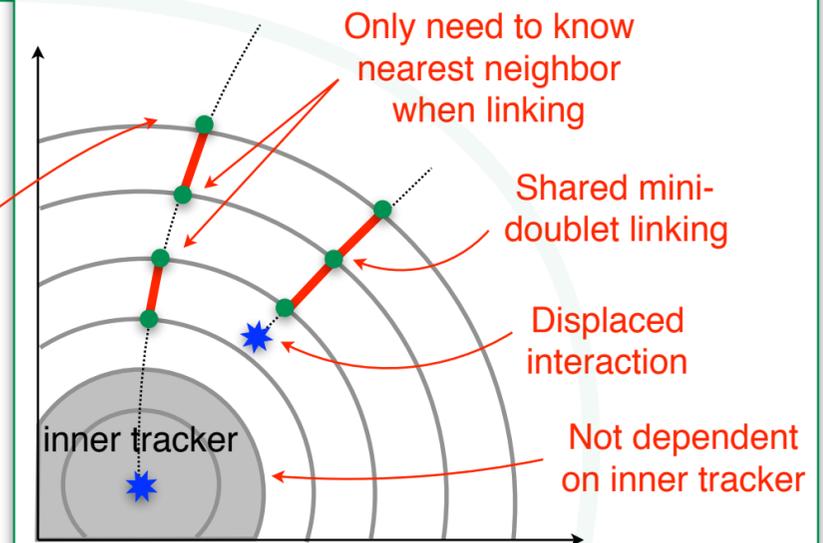
**1**  $P_T$  modules in CMS Phase 2 tracker enables parallel algorithm in outer tracker



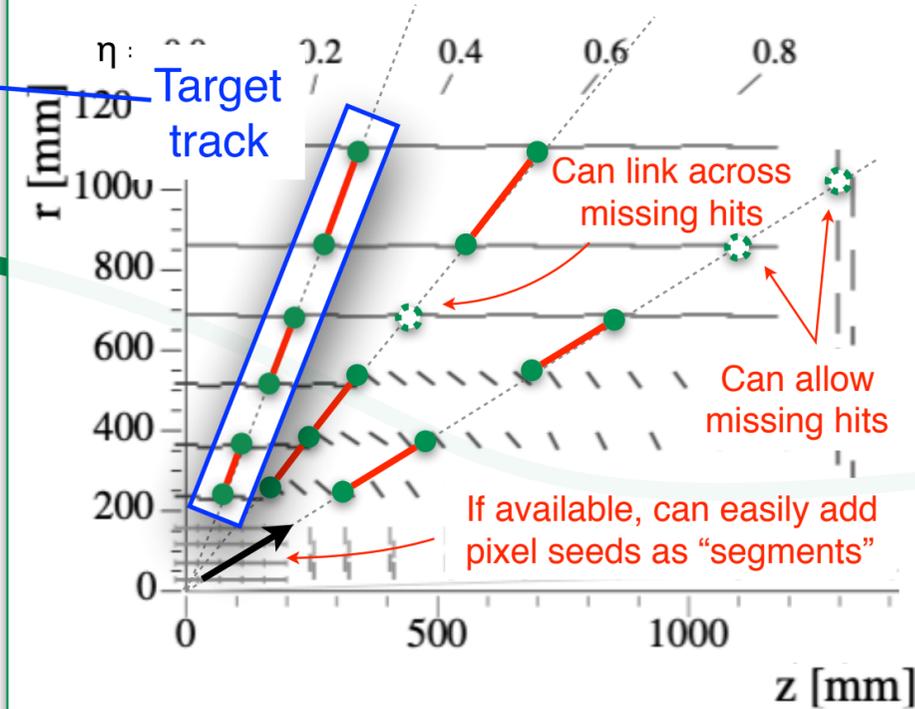
**2** Mini-doublets can be built in parallel



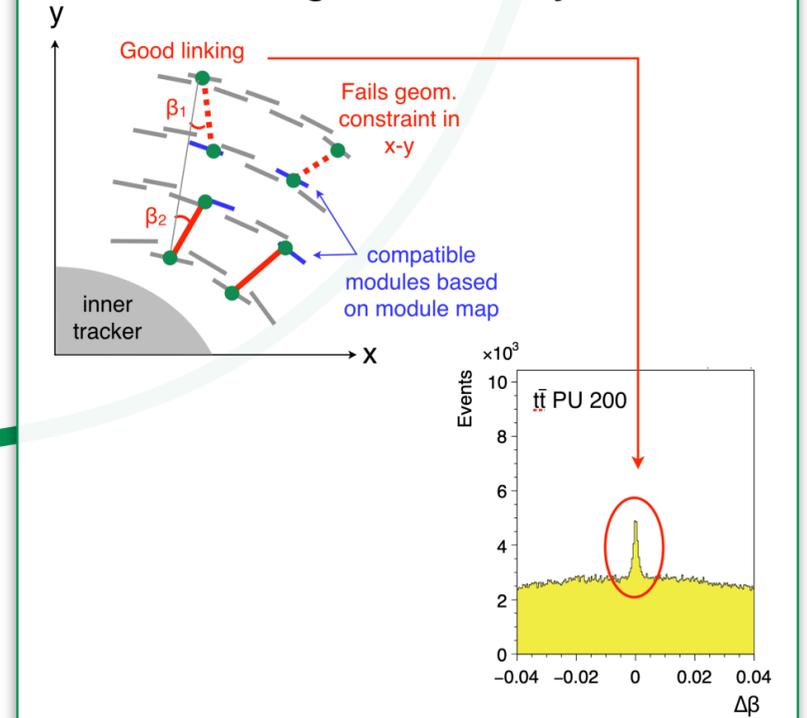
**3** Illustration of parallel segment building/linking and its benefits



**5** non-exhaustive list of possible track candidates shown below



**4** Segments can be linked geometrically



**6** Algorithmic efficiency of built track candidates of no missing hit tracks

