

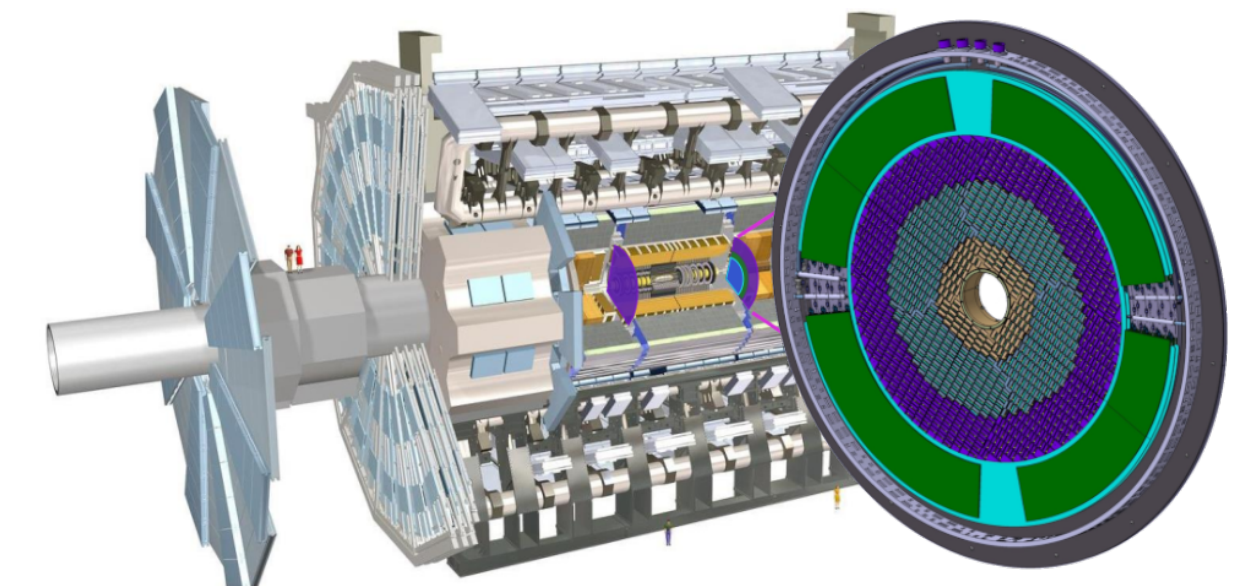


High Granularity Timing Detector

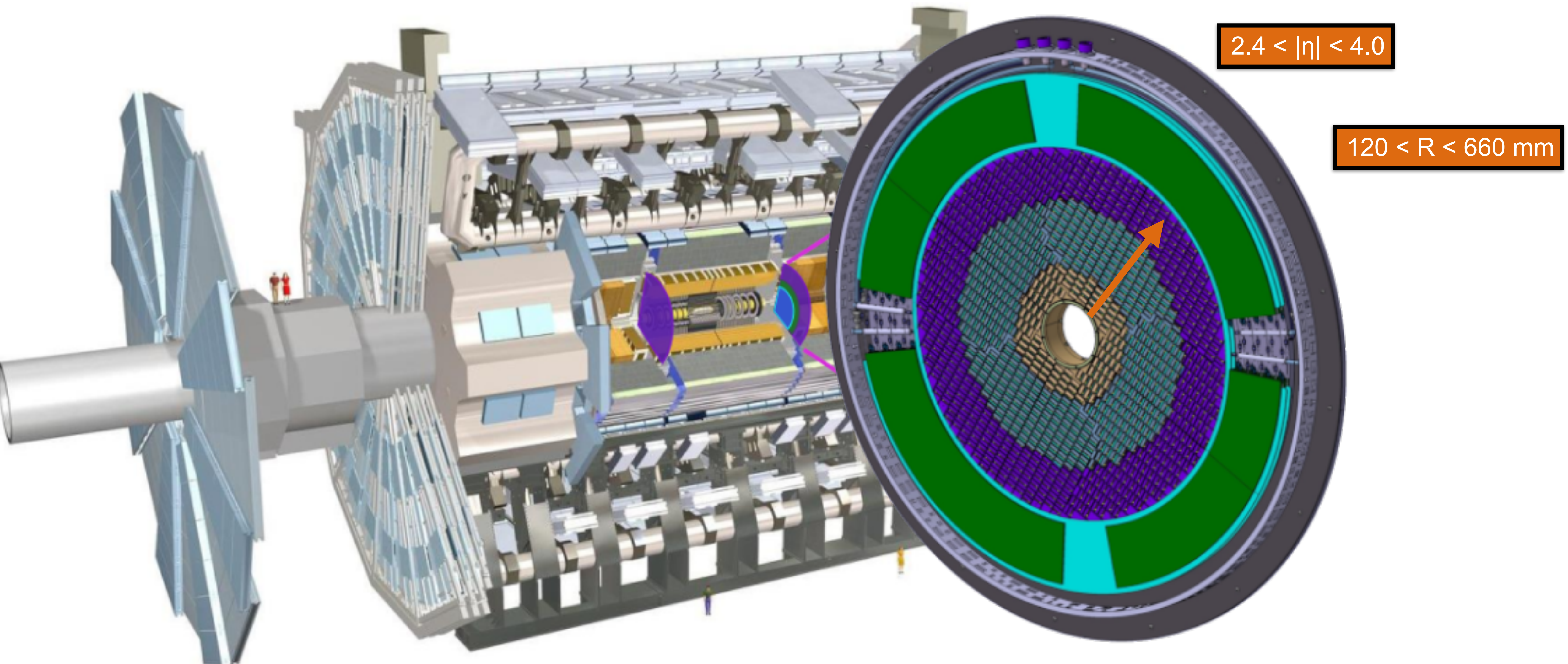
A new dimension for ATLAS

Stefan Guindon
CERN

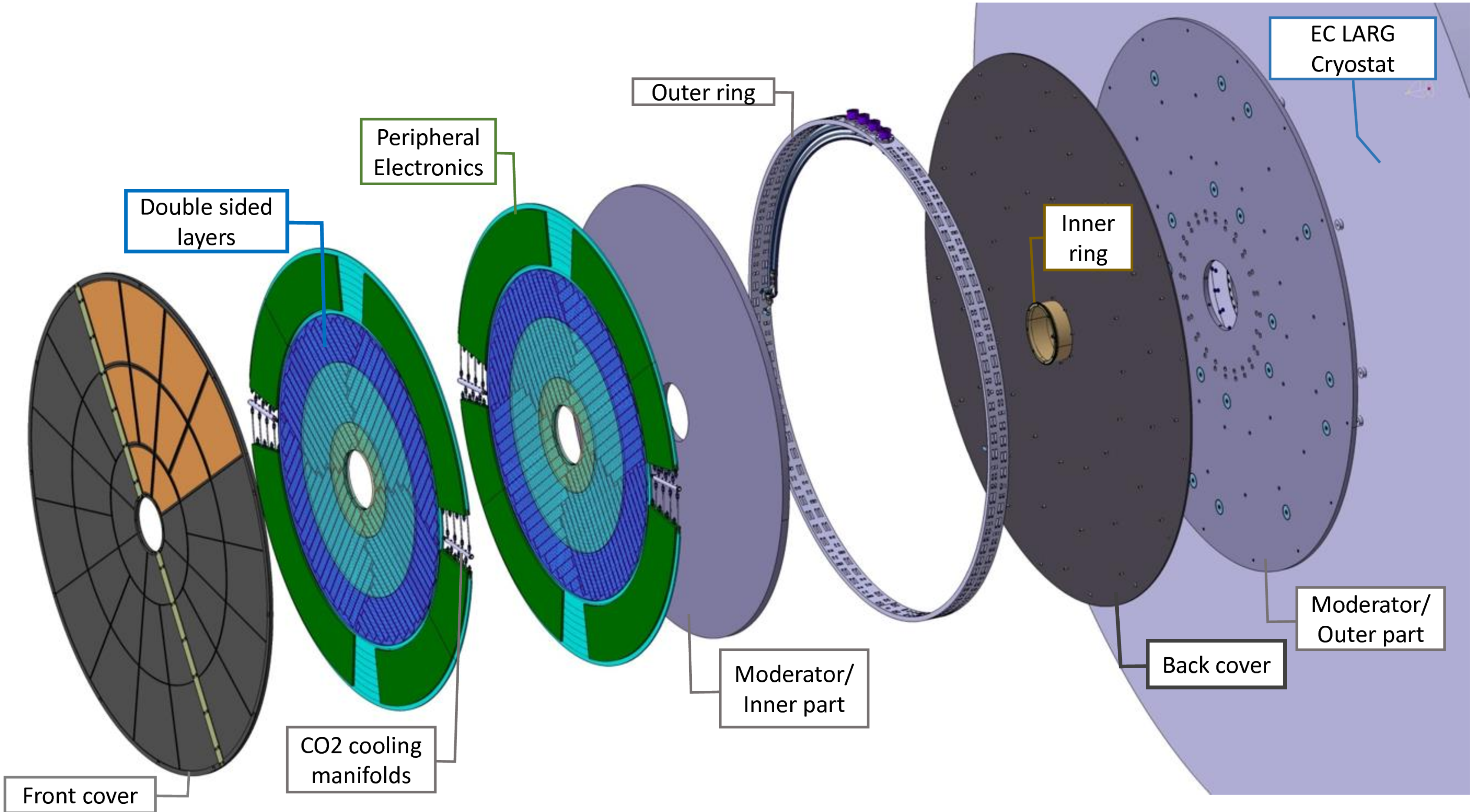
CERN EP Physics Workshop
November 18th, 2024

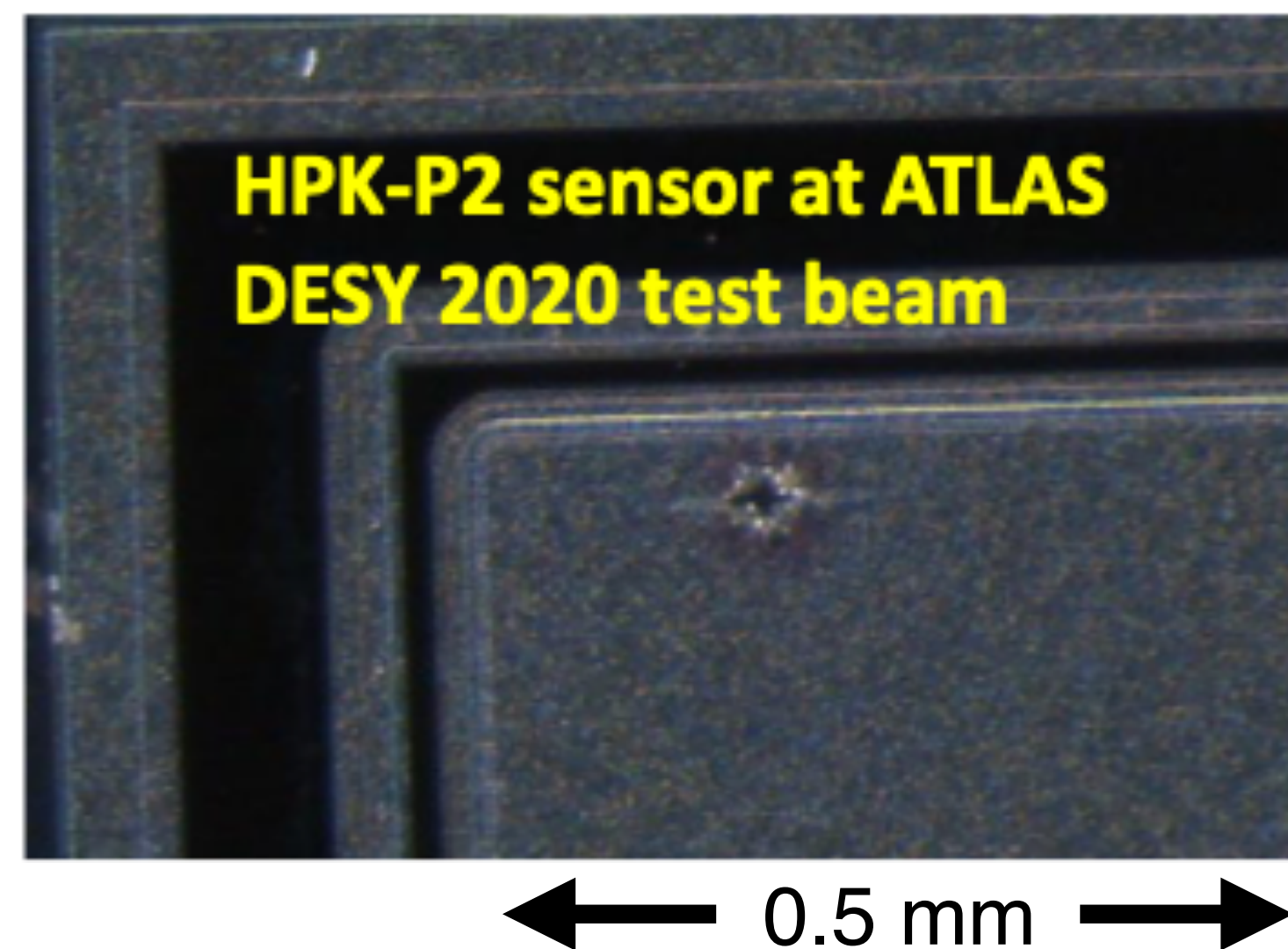


HGTD - High Granularity Timing Detector

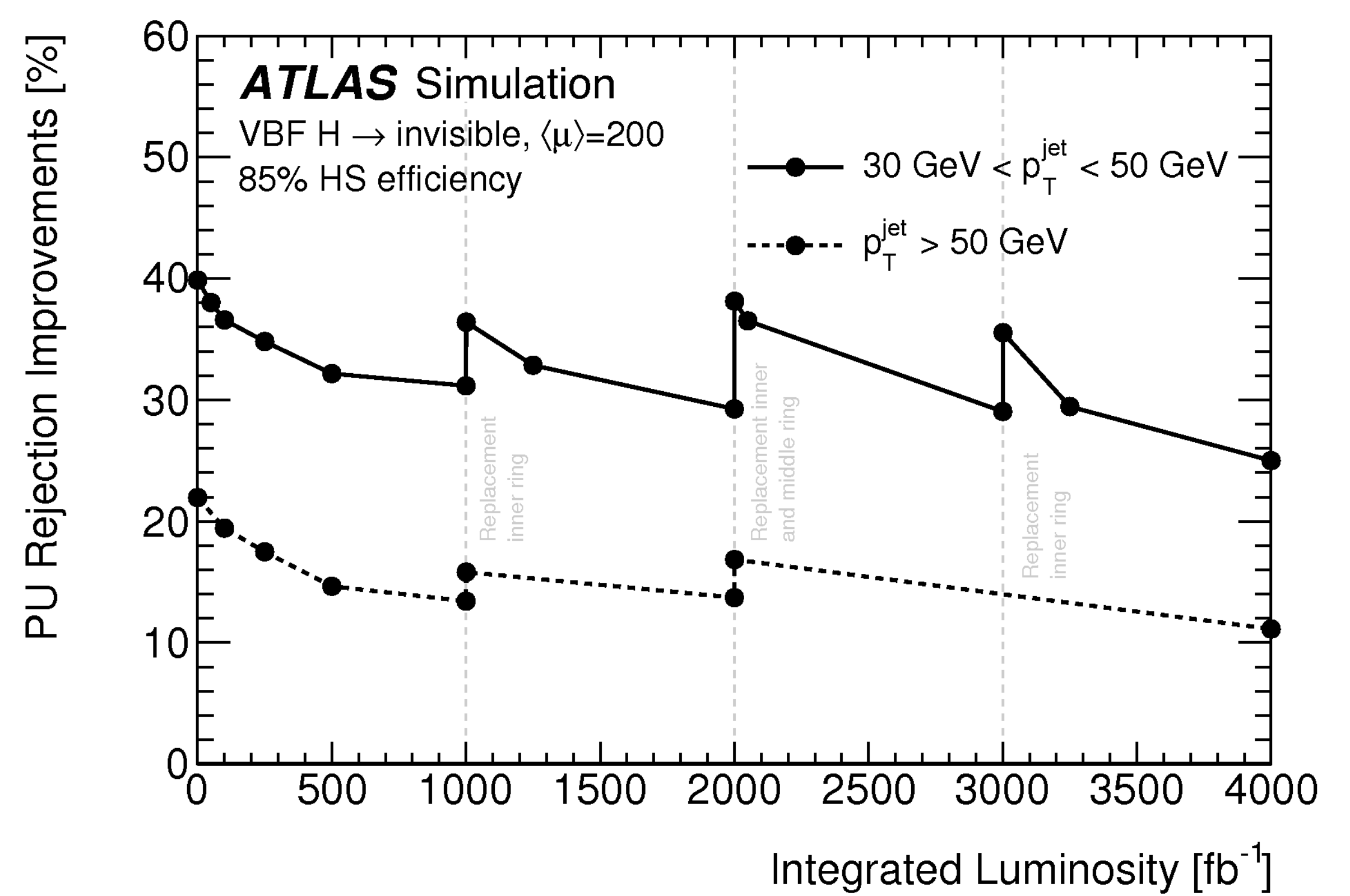
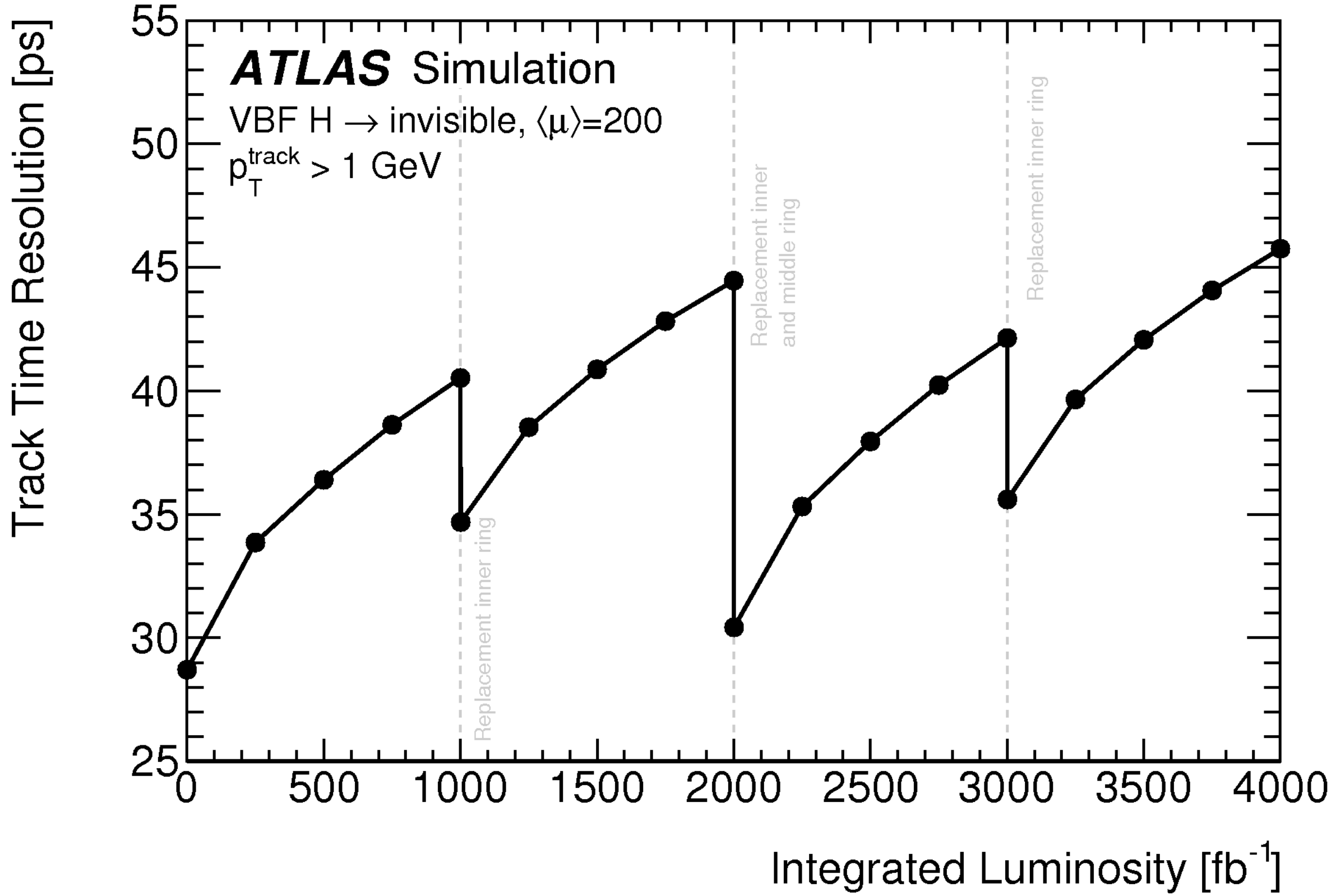


HGTD - High Granularity Timing Detector





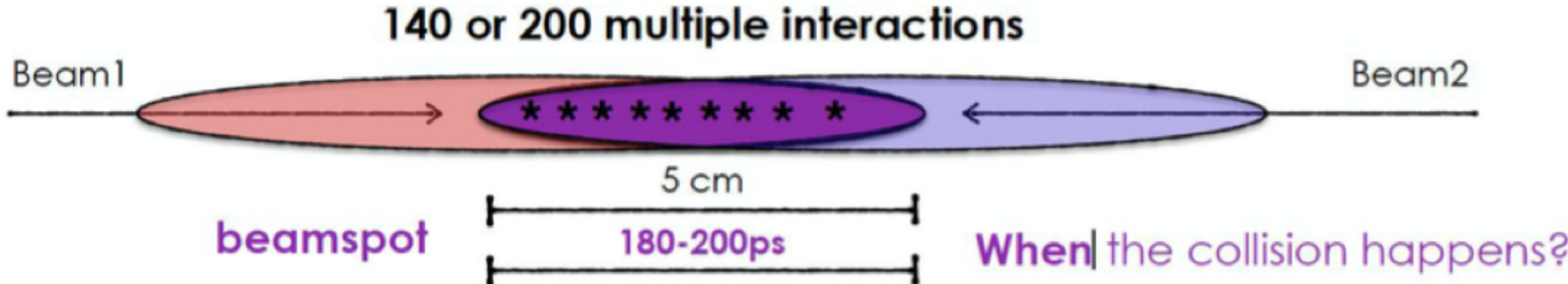
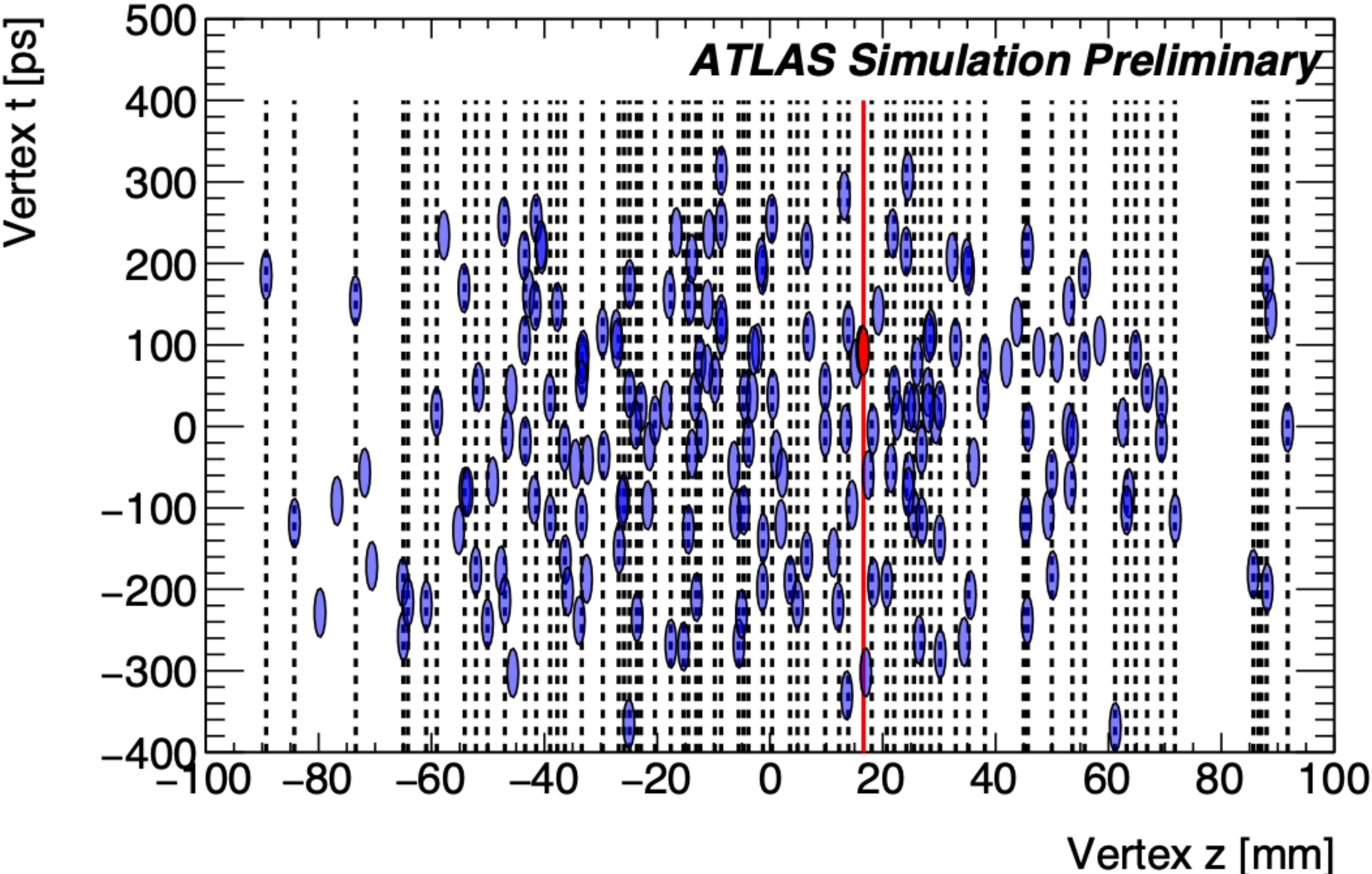
Performance



Additional

HL-LHC

- Up to 3-4 ab^{-1}
- Up to $\langle \mu \rangle = 200$
- **Beamspot spread:**
 - $z \sim 5$ cm
 - time ~ 180 ps



LGAD Cross section

