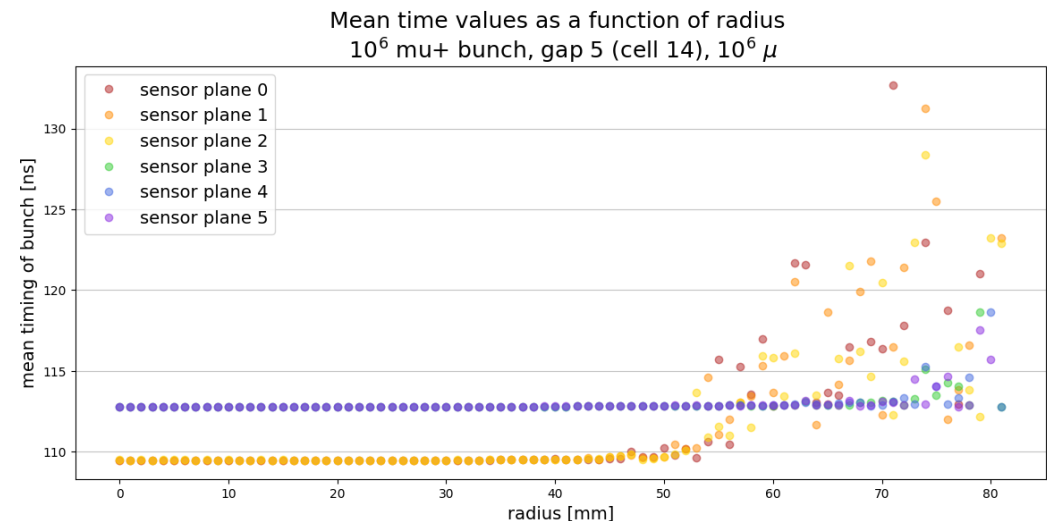
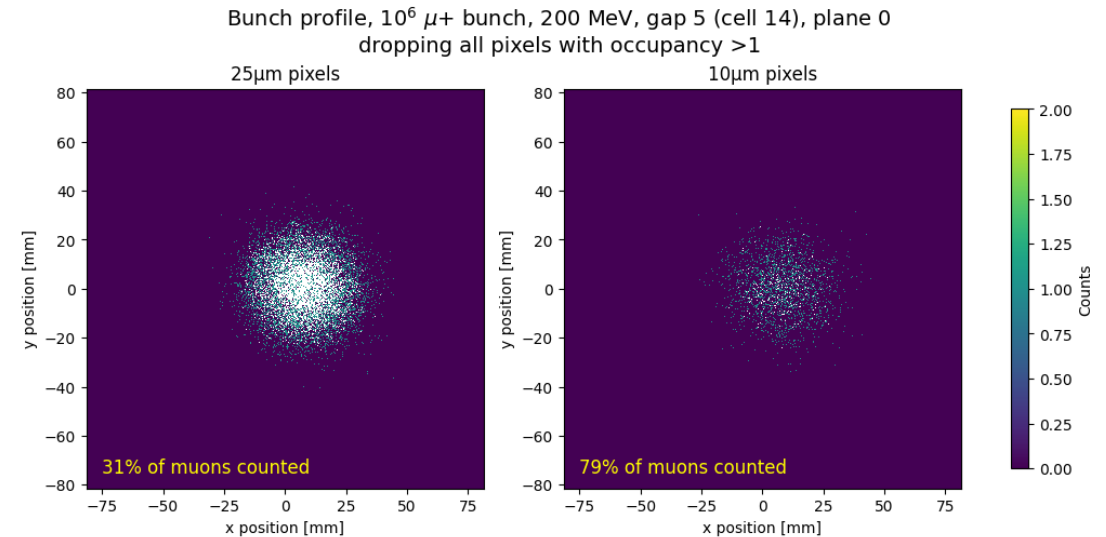


7.13.2026 Update—Cici Hanna

- Measuring muon bunch incident on plane of pixels—high occupancy pixels drop timing information
- Cutting on single-hit pixels shifts timing, because it changes the radial distribution of hits, and timing is not uniform radially



Ways to address:

1. Smaller pixel size (single-hit $10\mu\text{m}$ pixels have about the same radial distribution as all hits, and thus the same timing distribution)—technically challenging
2. Compensating with path-length calculation—weighing path length based on radial distribution of entry/exit points of path used to calculate (have been working on this... shifted path length lower?)
3. Radial cut based on single-hit data—plot timing vs. radial distribution of single hits and only take timing data from radial region where it's constant