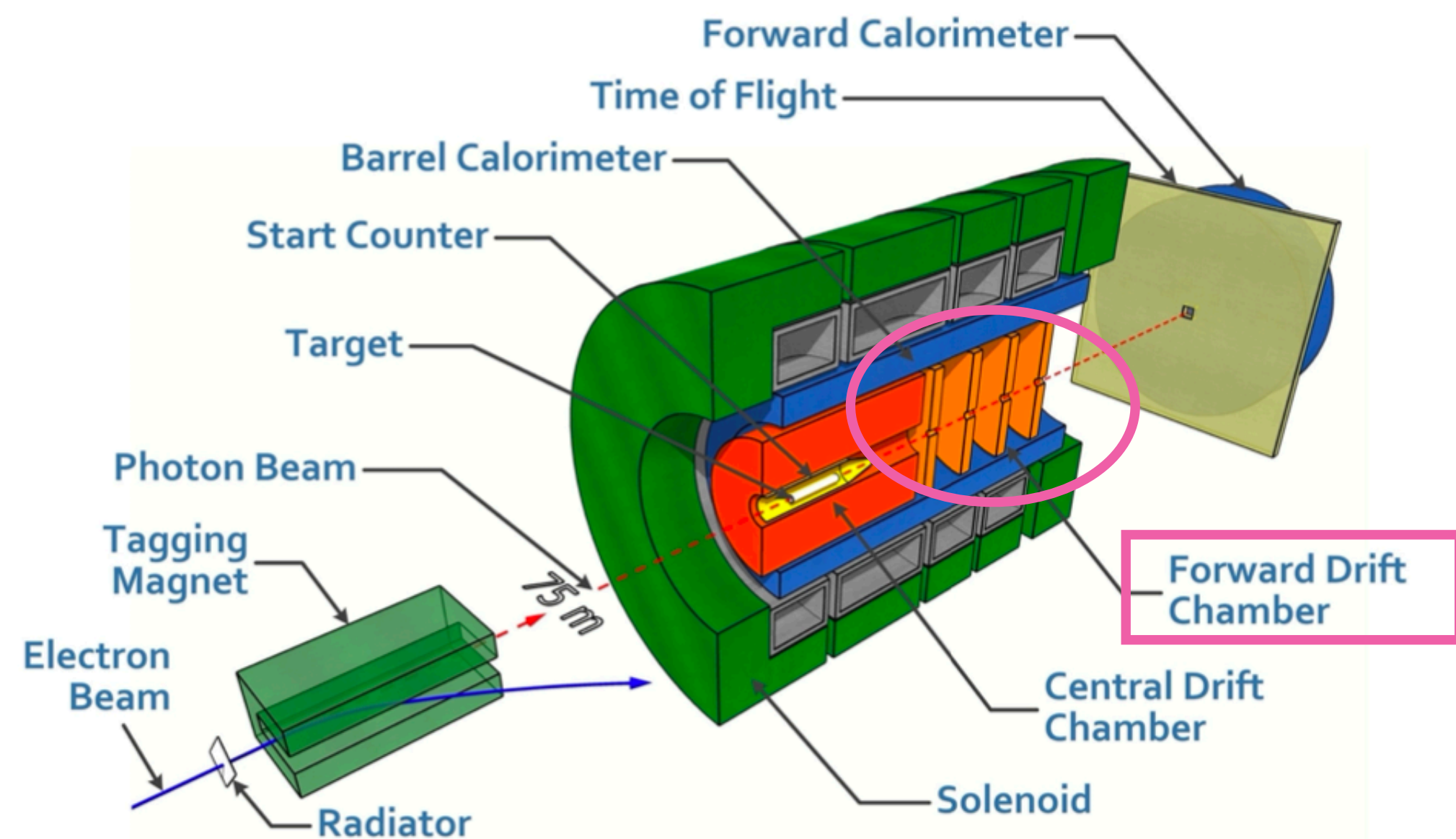
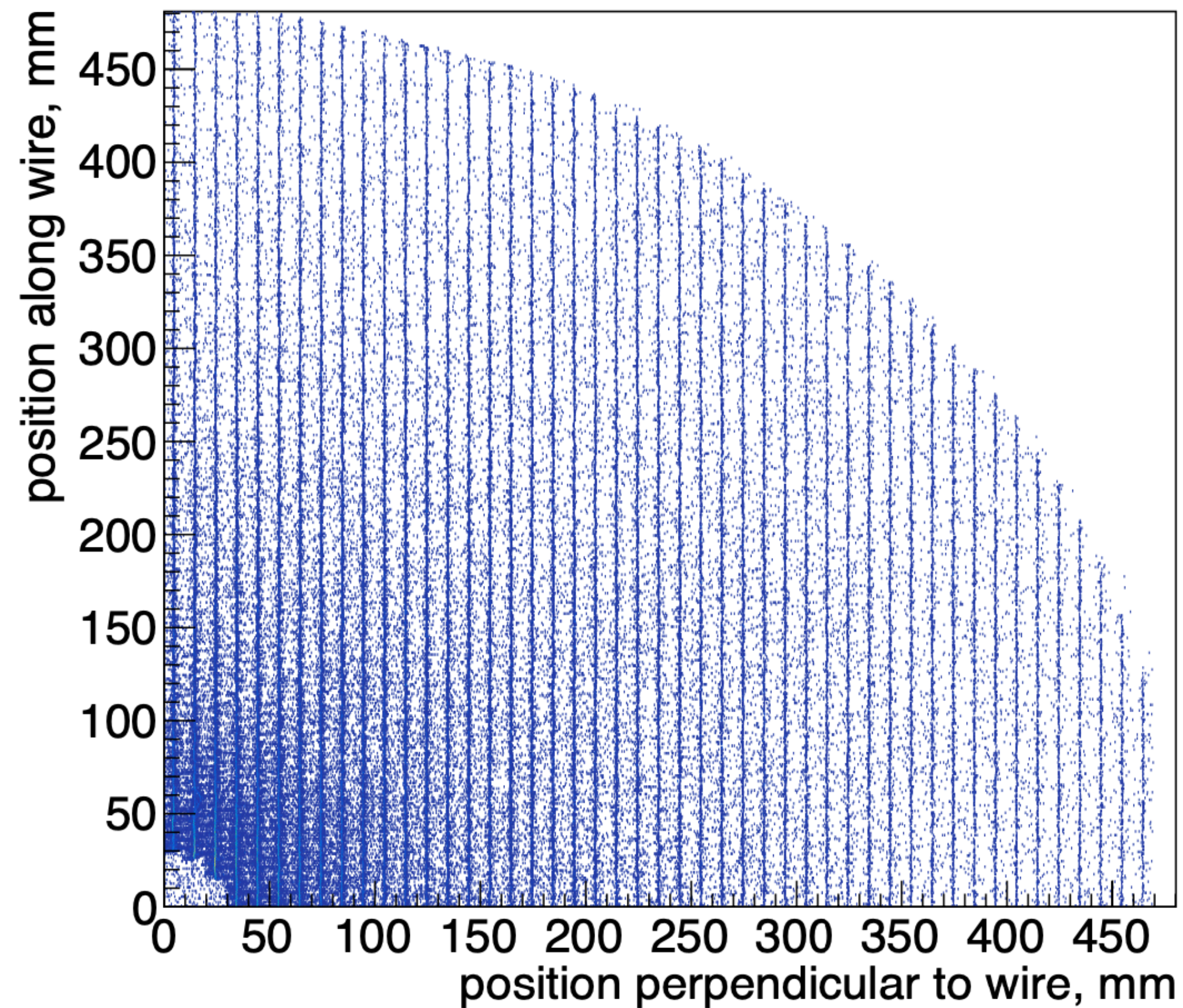


Forward Drift Chamber



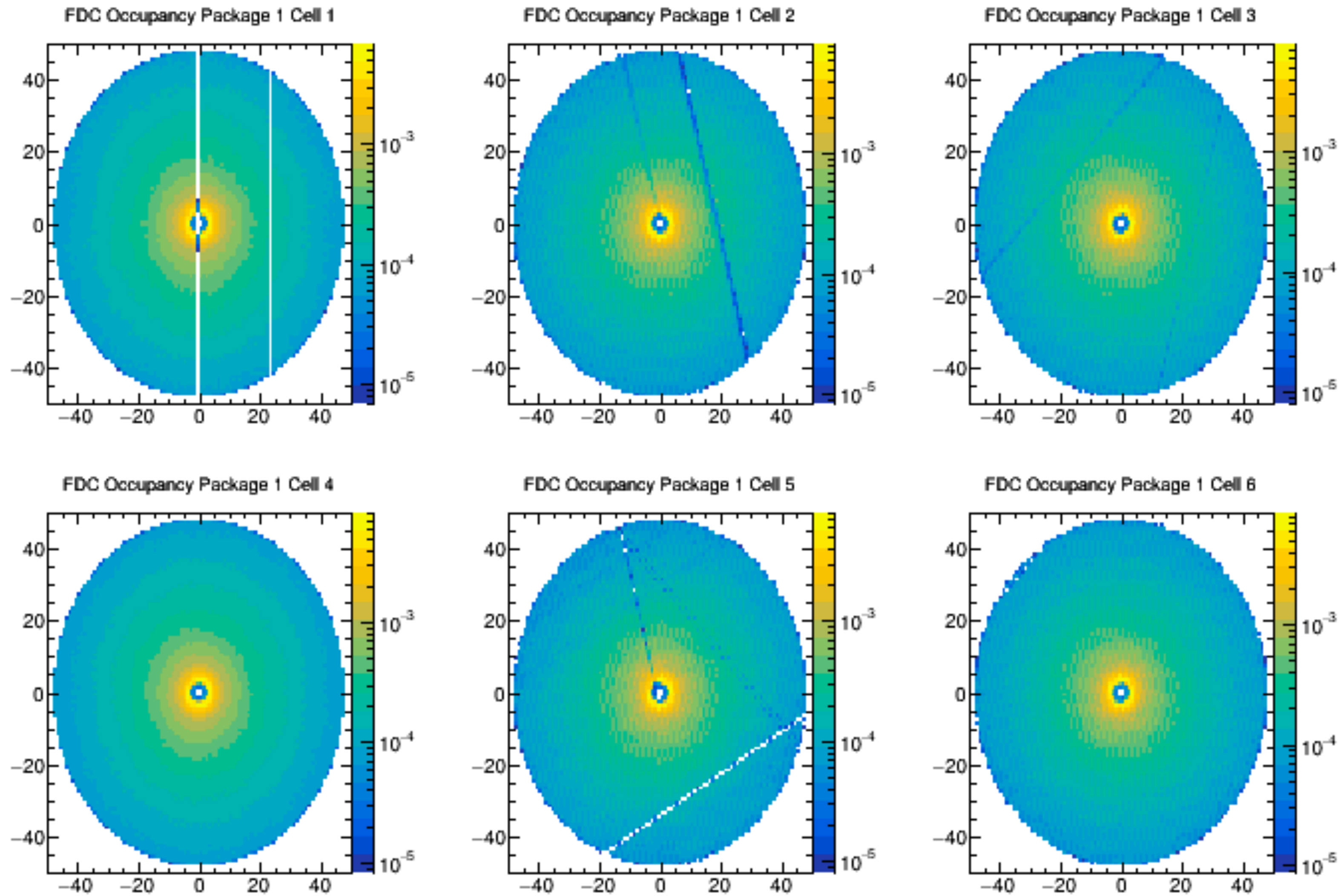
- Provides charged-particle tracking
- Coverage from 1° to 20°
- Used for momentum measurement of charged particles

Forward Drift Chamber



- 4 Planar drift chambers
- Grid of wires and cathode strips with Ar-CO₂ fill gas
- Charged particles pass through and produce avalanches
- Hit positions fit to tracks to measure momentum

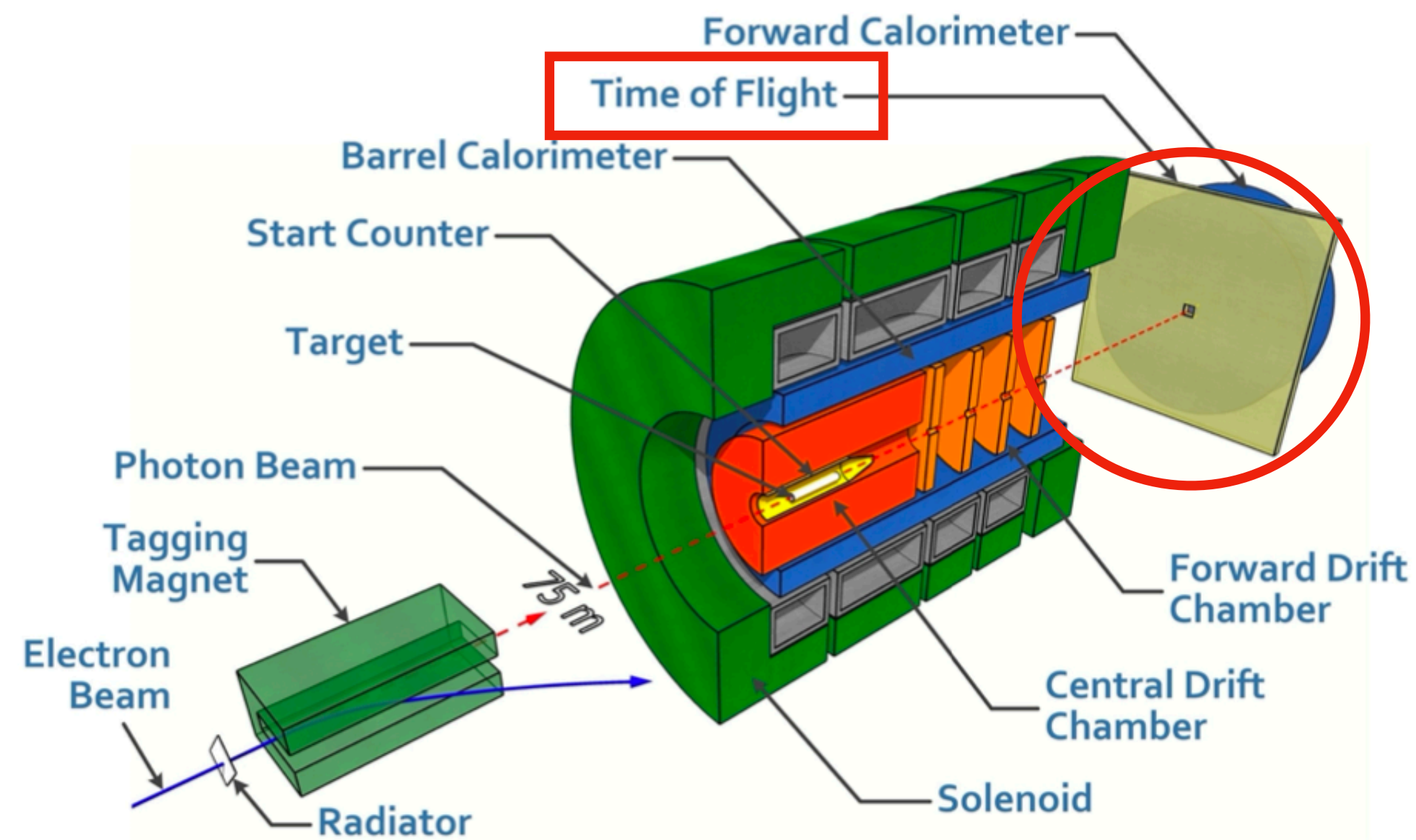
FDC Cathode Occupancy



FDC Status

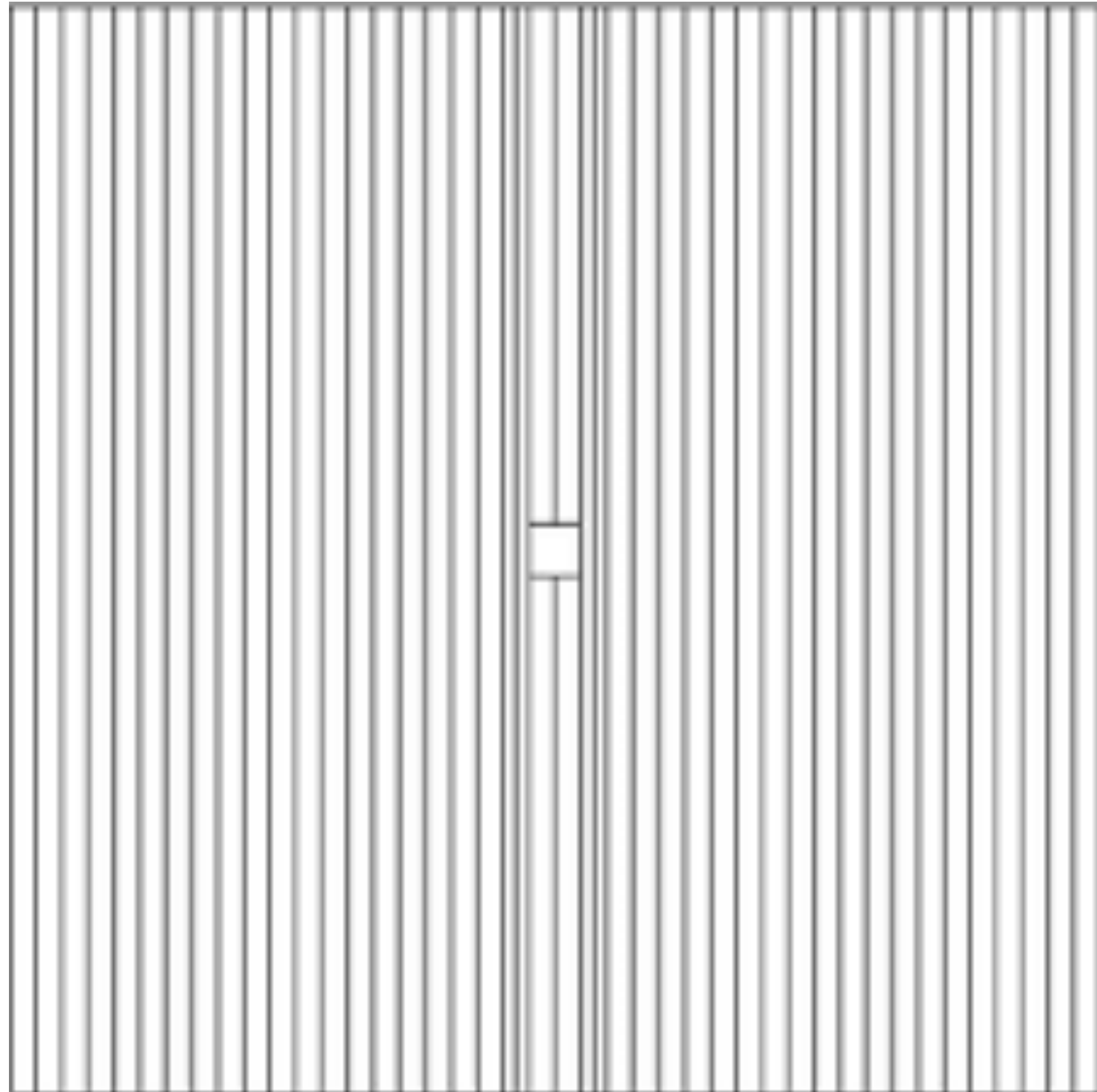
- Considered highly stable; not in use for PrimeX
- Alignment being calibrated by **Keigo Mizutani**
- Relative timing calibrated by **Sean Dobbs**
- Expert: **Lubomir Pentchev**

Time-of-Flight



- Provides position and timing information
- Coverage from 0.6° to 13°
- Used for time-of-flight/velocity measurement for charged particles
- (Also should allow forward neutron detection)

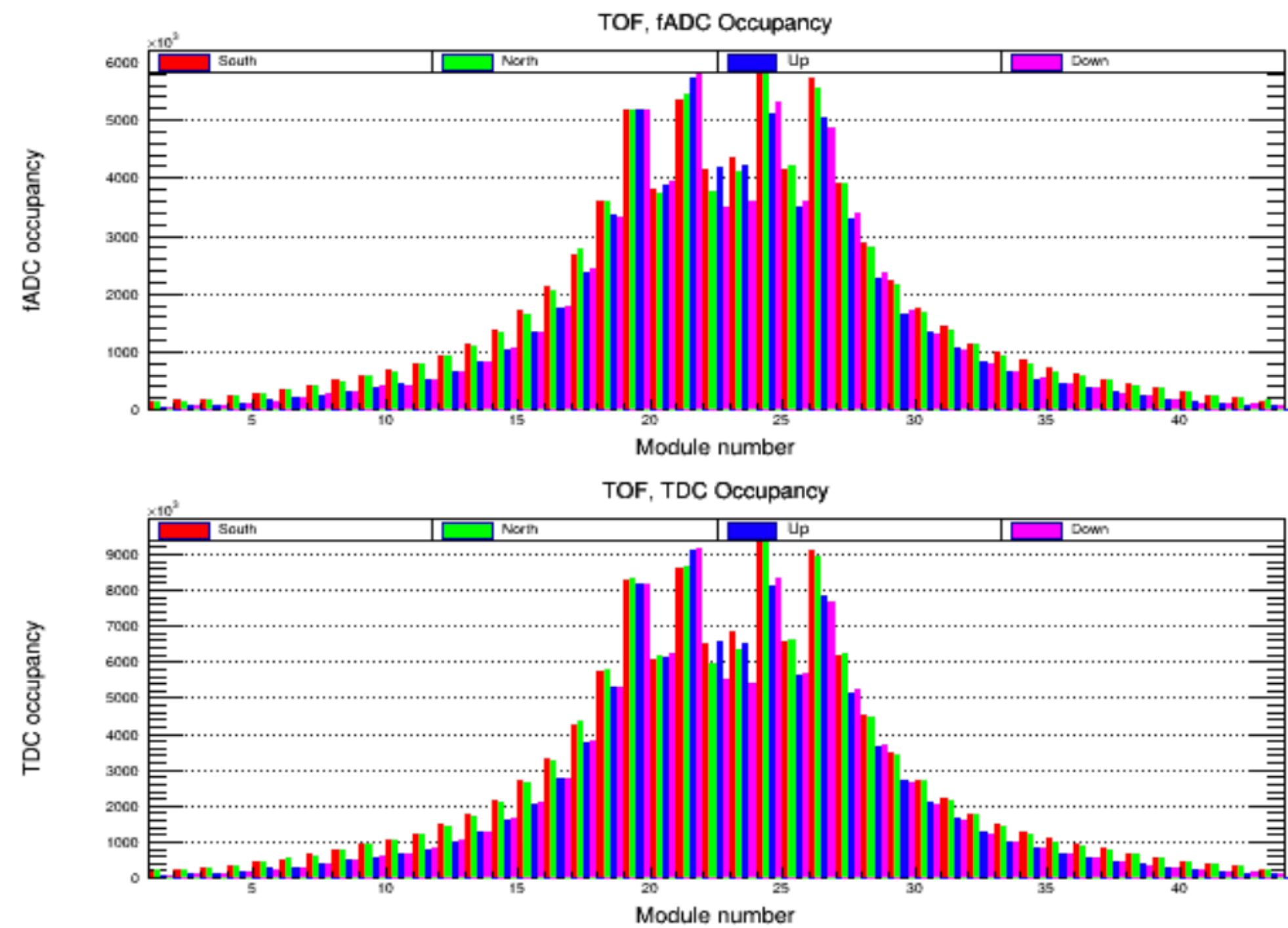
Time-of-Flight



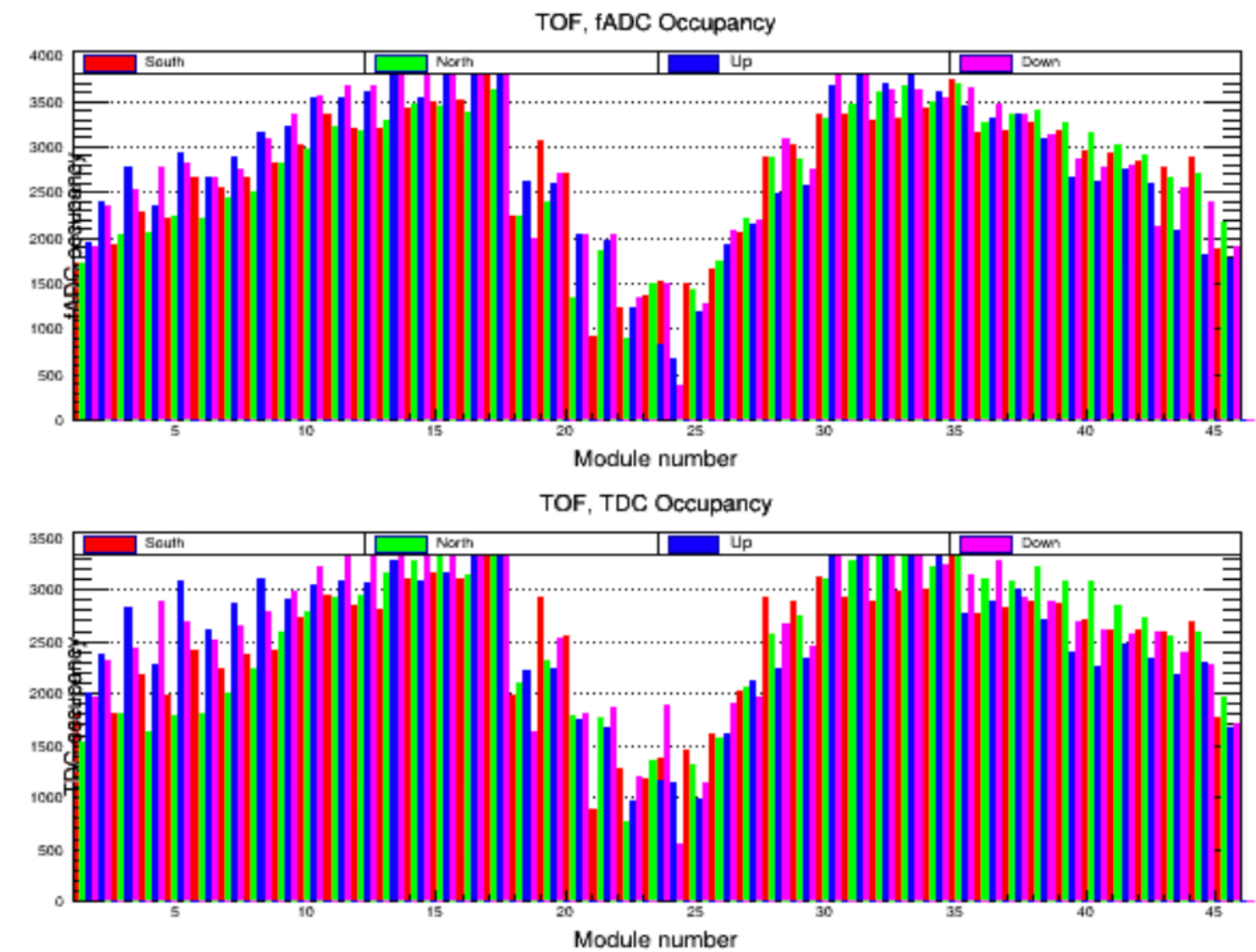
- Overlapping vertical and horizontal set of plastic scintillator paddles
- Simultaneous hits in each layer give position information
- Timing difference between track start and TOF hit gives velocity measurement

TOF Occupancy

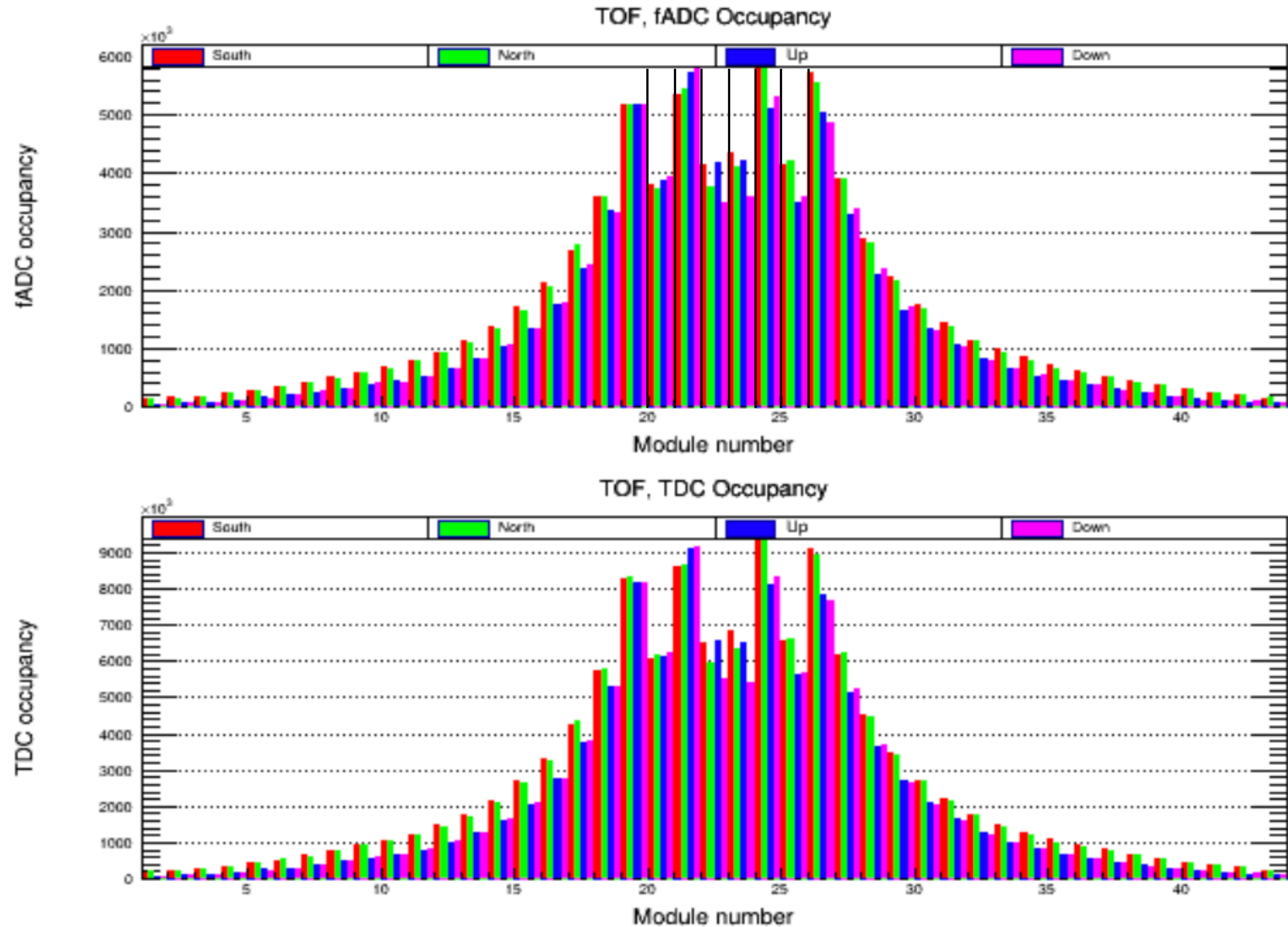
Normal Run



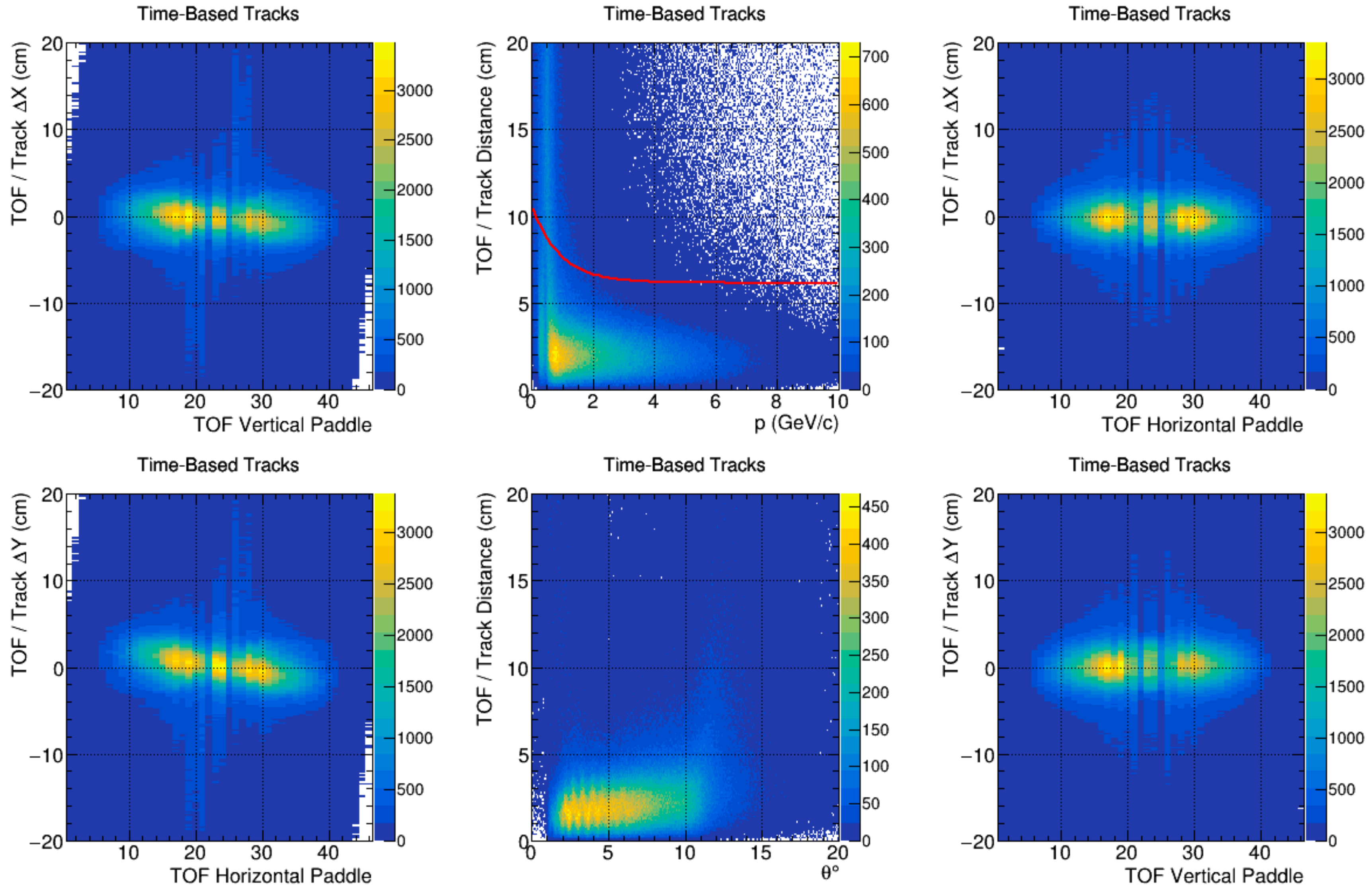
Cosmics



TOF Occupancy



TOF Matching



TOF Status

- Currently calibrated for PrimeX by **Beni Zihlmann**
- Calibration will continue to be performed by **Beni**
- Expert: **Mark Ito**