

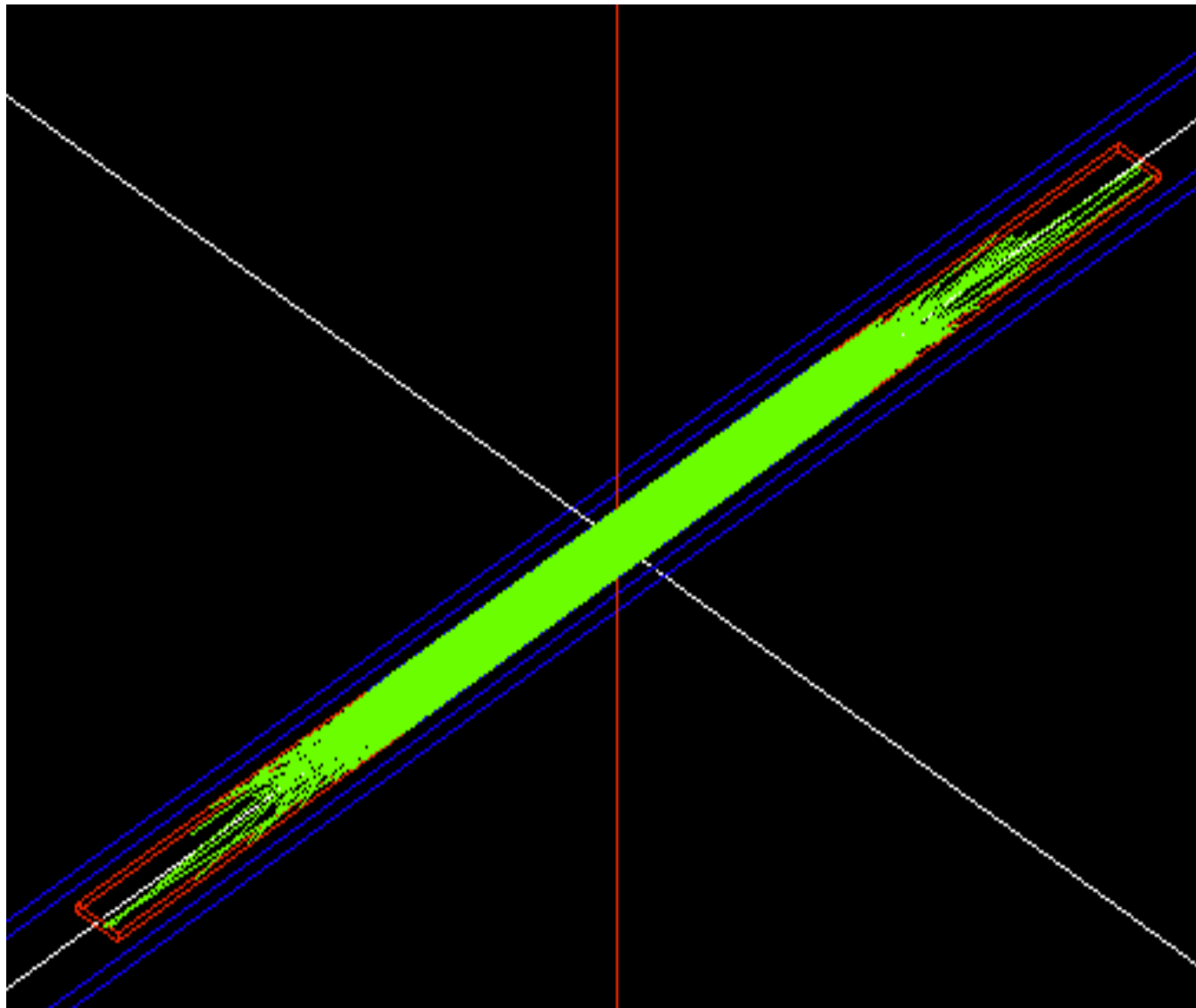
HANUL MEETING

Hodoscope G4optsim

Korea Univ.
Wooseung Jung

CONDITIONS

Beam : 10 GeV mu-



SD scintillator

- (80^L x 7^W x 1^T cm)
- Scintillation yield : 10000./MeV
- Absorption length : 140 cm (typical)
- Reflective index : 1.58

Al reflector

- Wrap a scintillator
- 0.5 mm thick
- Reflective index : 1.20
- Reflectivity :0.95

SD MPPC

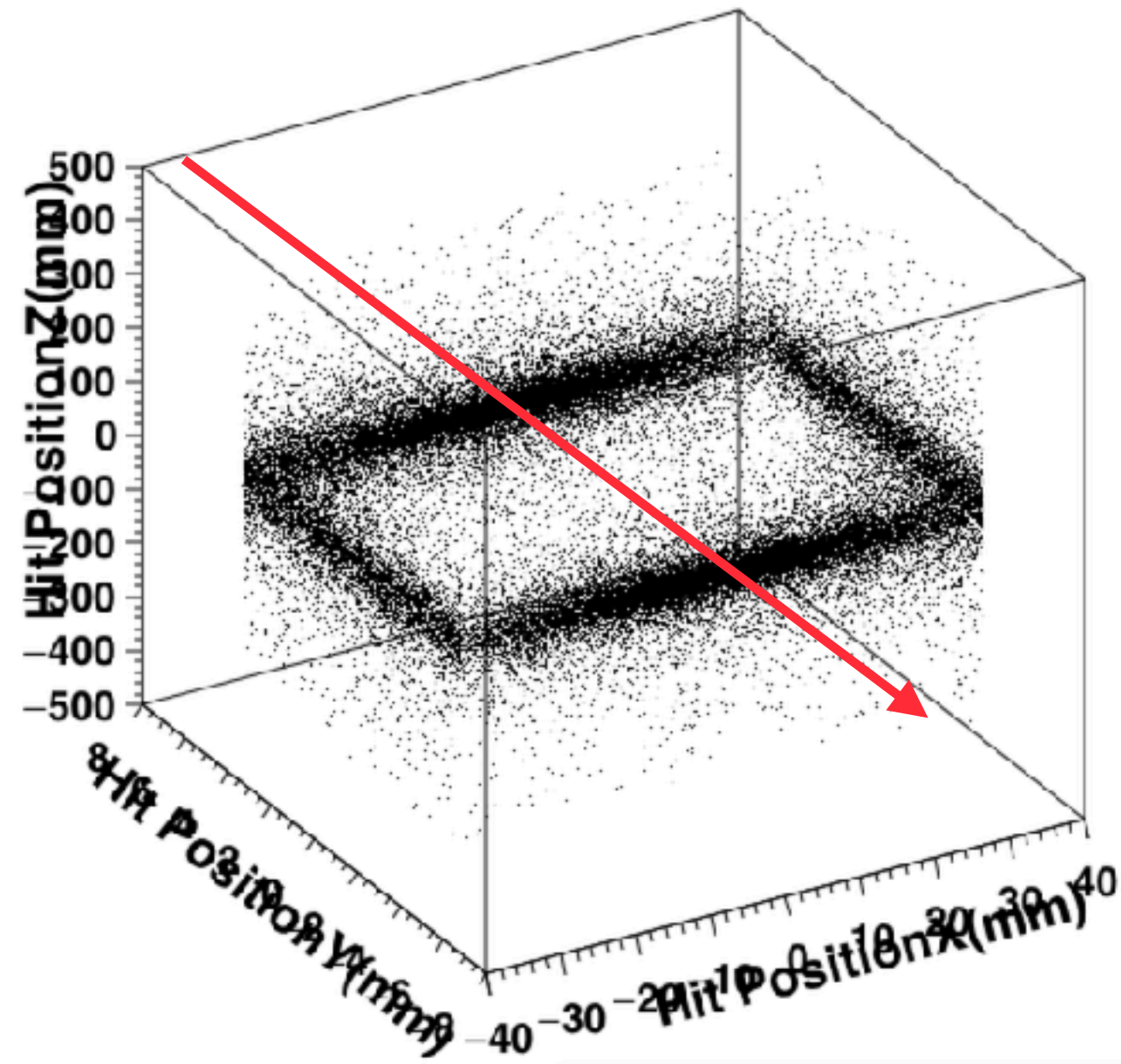
- (50^L x 7^W x 1^T cm)
- Reflective index : 1.41
- Reflectivity :0.95

Physics processes

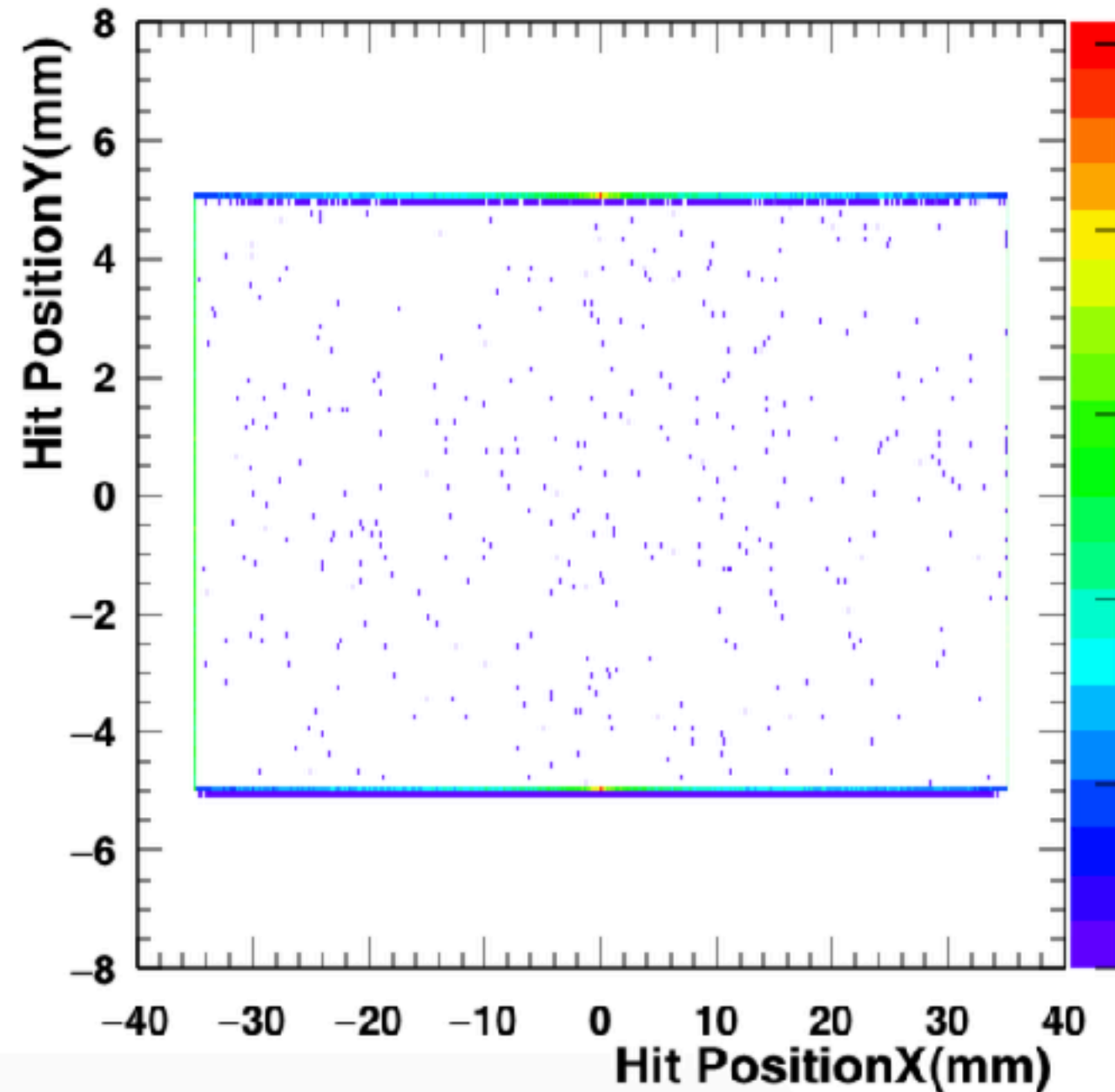
- Boundary process
- Scintillation process
- Absorption process
- Ignored a saturation

SCINTILLATOR HIT PATTERN

Scintillator hitpattern

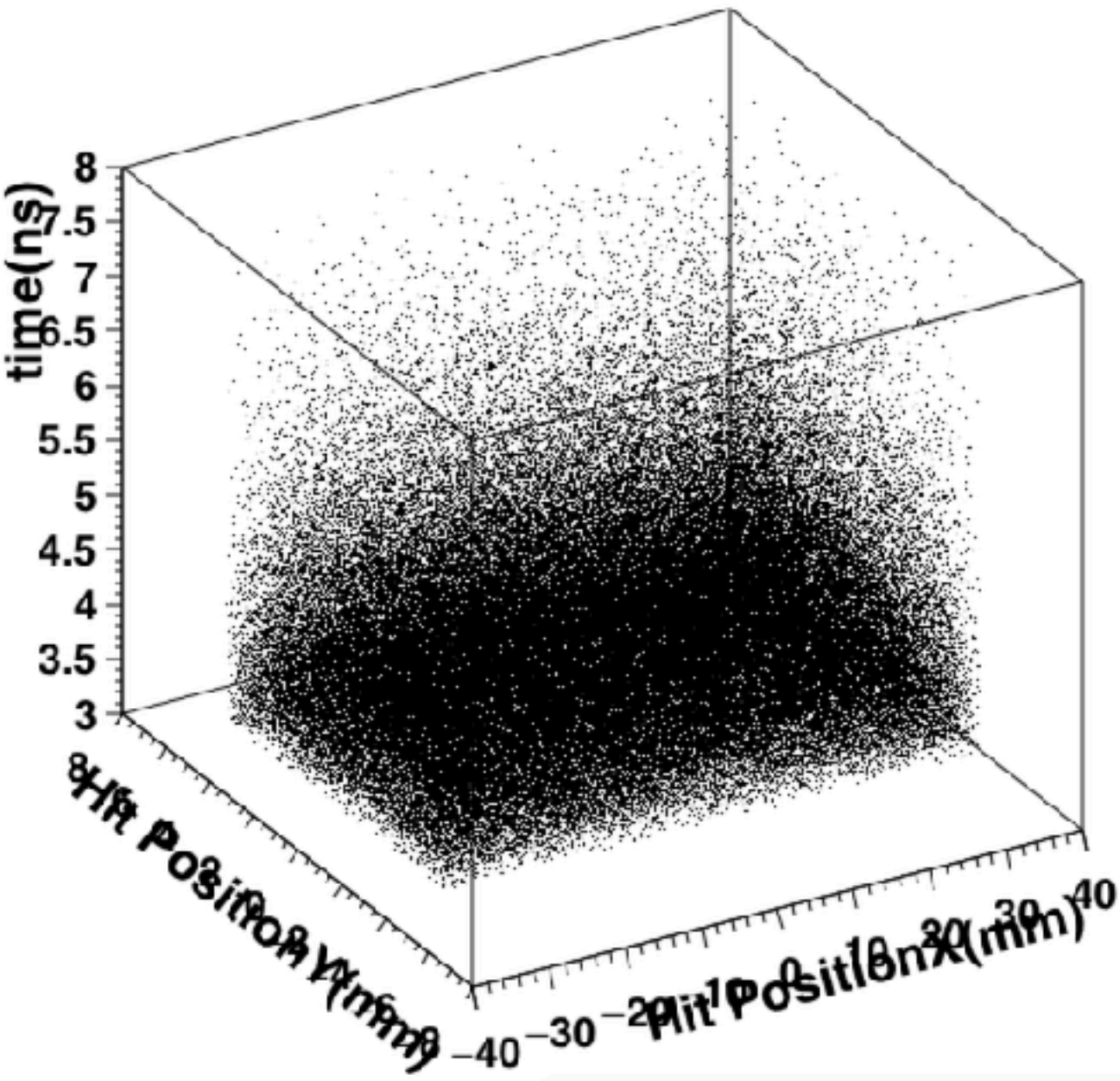


Scintillator hitpattern

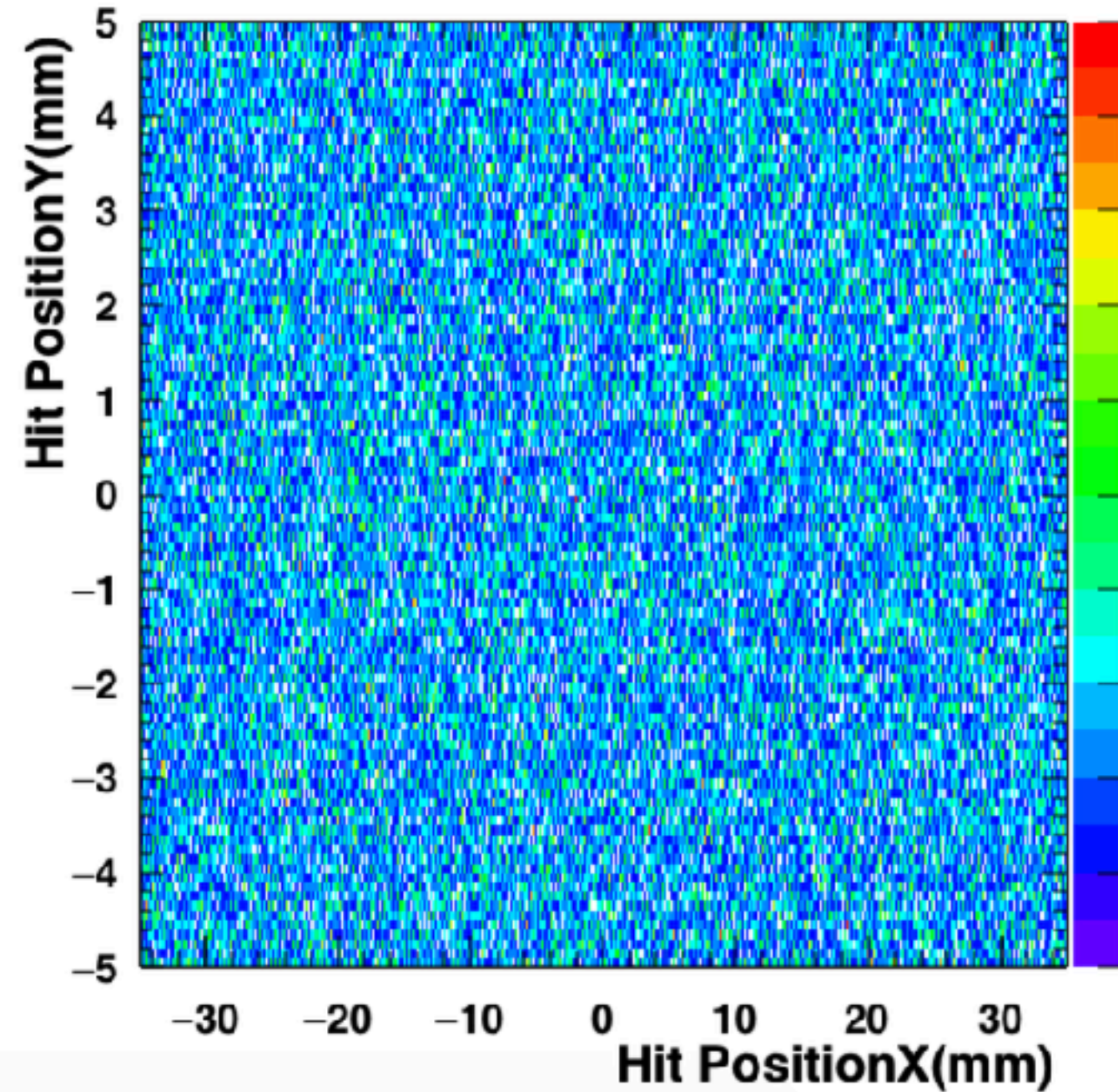


MPPC HIT PATTERN

MPPC hitpattern vs time

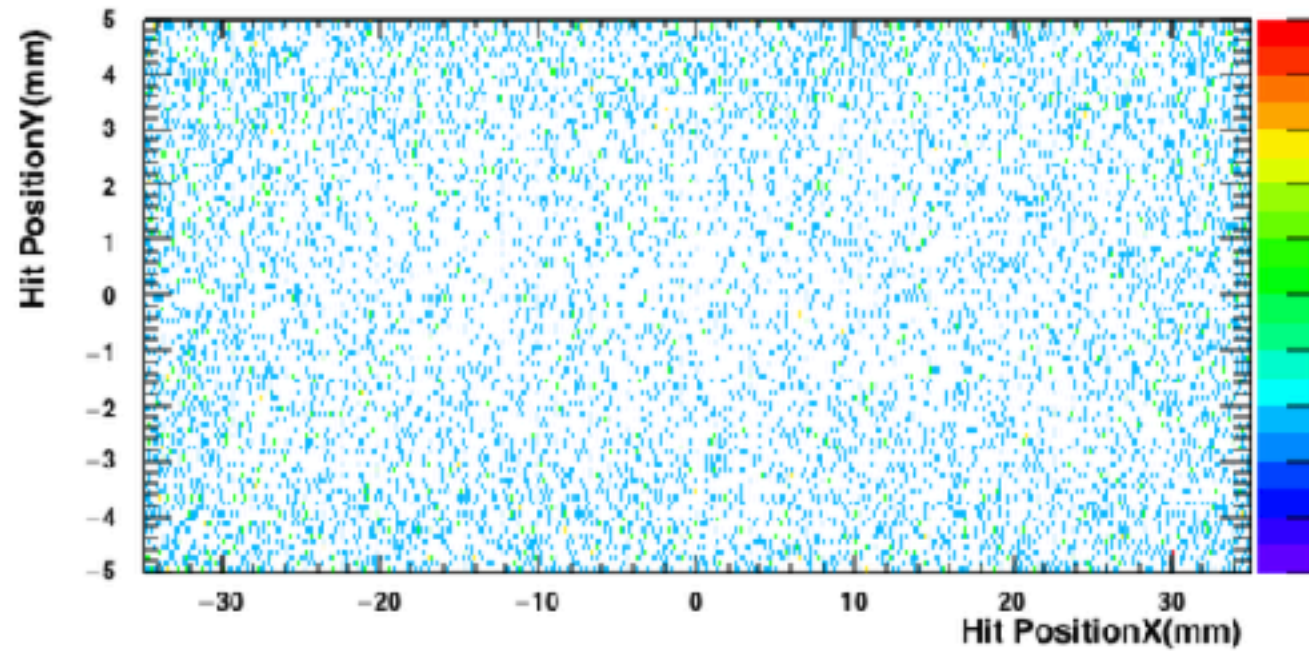


MPPC hitpattern

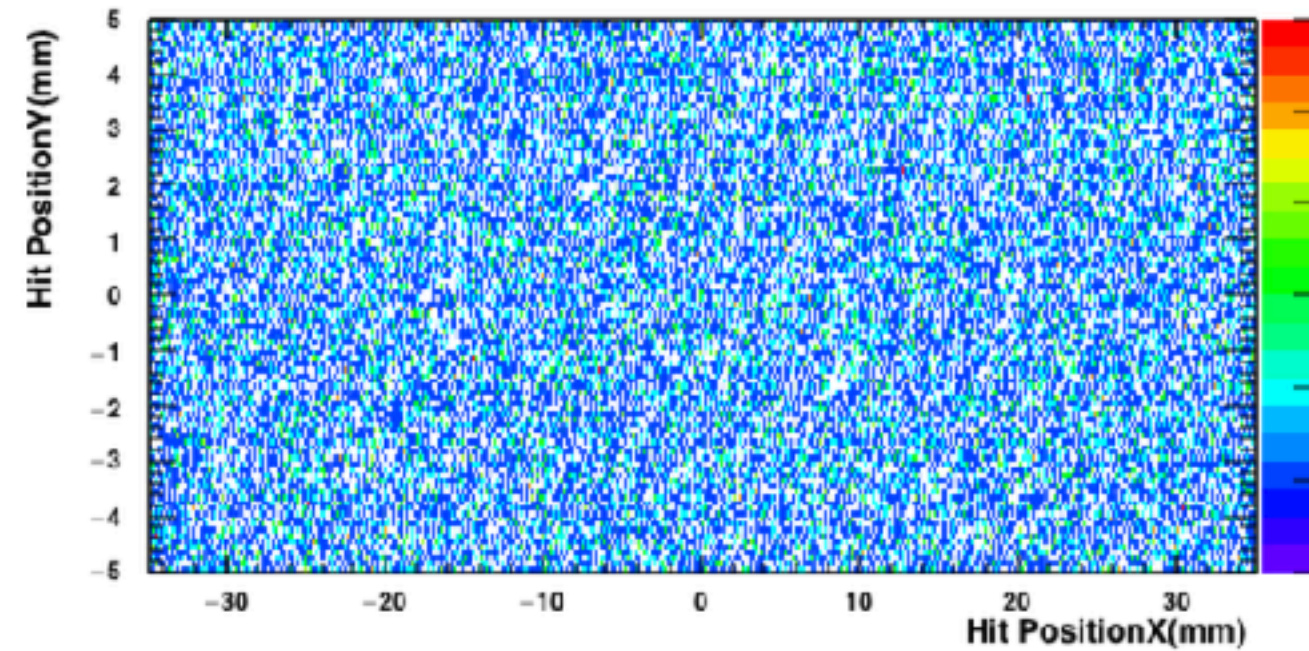


MPPC HIT PATTERN

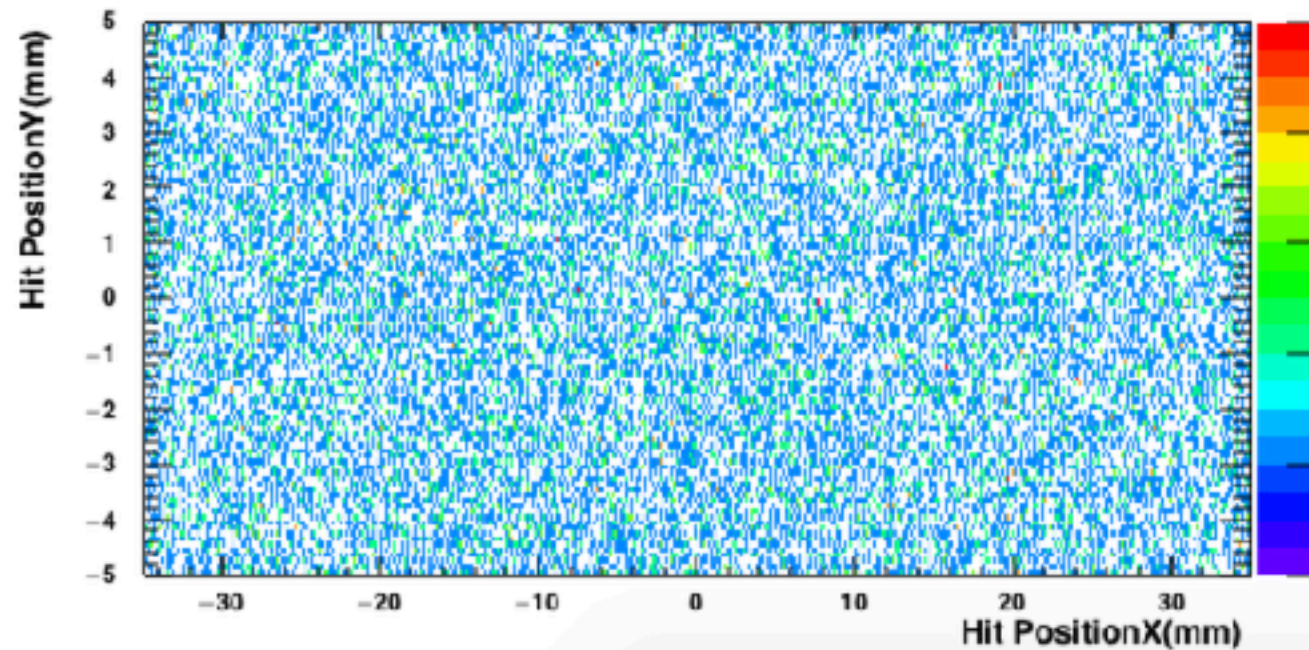
MPPC hitpattern, 3.0 ns < propagation time < 3.5 ns



MPPC hitpattern, 3.5 ns < propagation time < 4.0 ns



MPPC hitpattern, 4.0 ns < propagation time < 4.5 ns



MPPC hitpattern, 4.5 ns < propagation time < 5.0 ns

