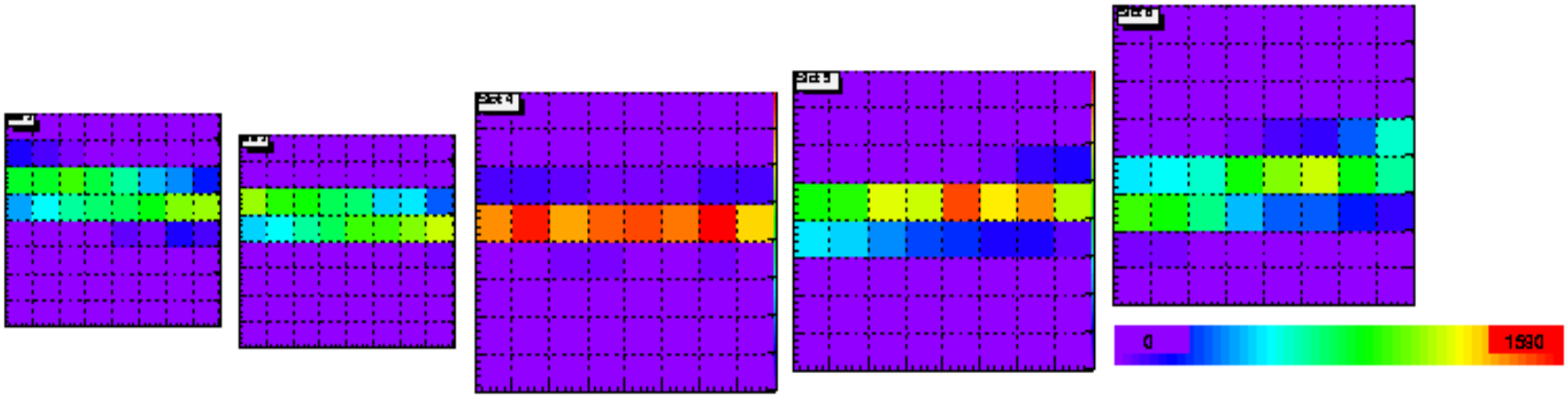
Status of the program

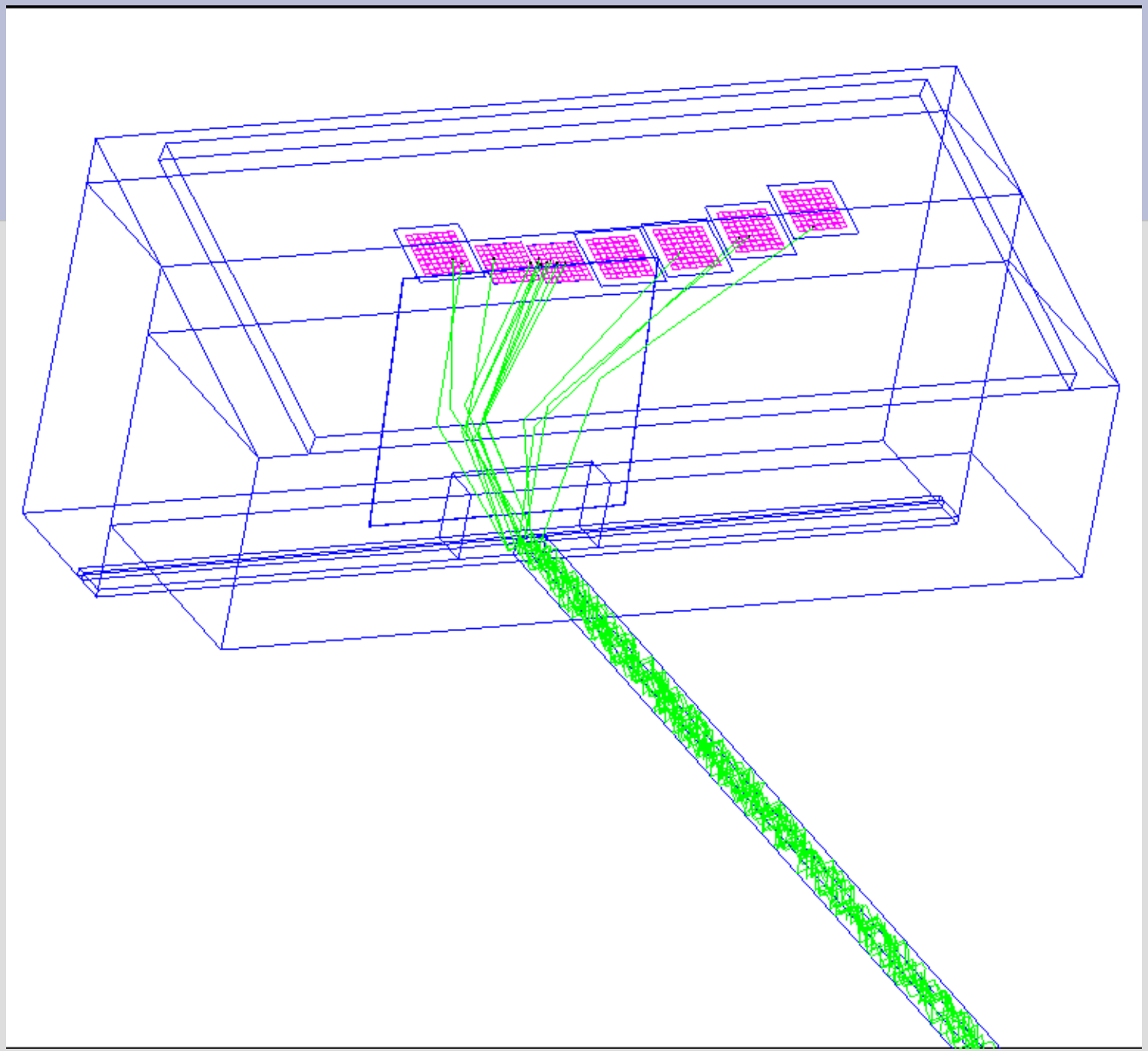
- Geometry : all important parts added
- Phase refractive indices of KamLand oil, Epotek, Quartz material
- mirror reflectivity
- quantum efficiency of Hamamatsu and Burle PMT's
- transmission of photons in Epotek, KamLand oil, and Quartz material
- internal reflection coefficient for one bounce

Outputs

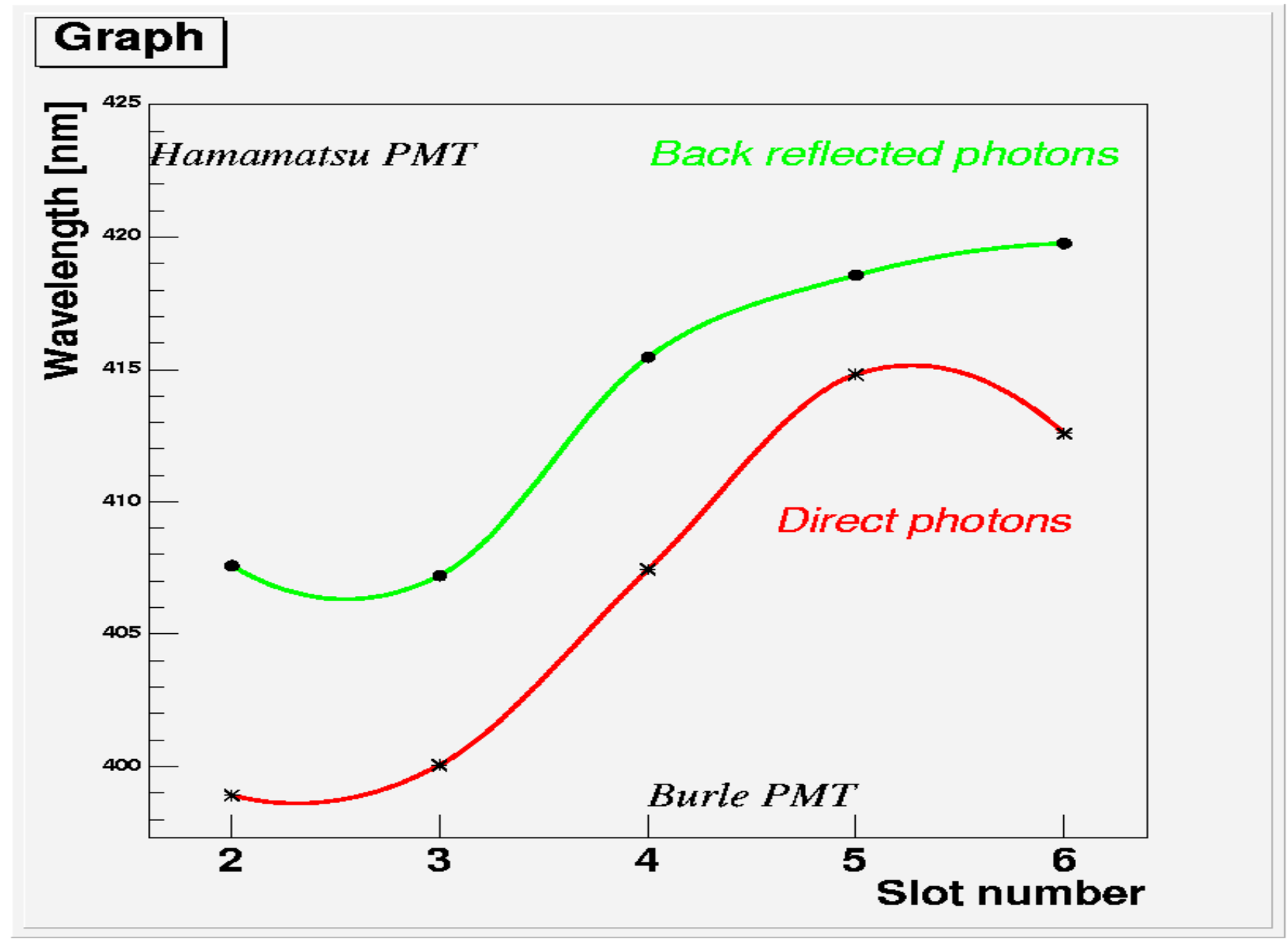
- Number and position of hits per electron
- original direction cosines and cherenkov angle,
- wavelength of registered photons,
- path length in bars and KamLand oil,
- time of flight in bars and KamLand oil,
- cherenkov ring.

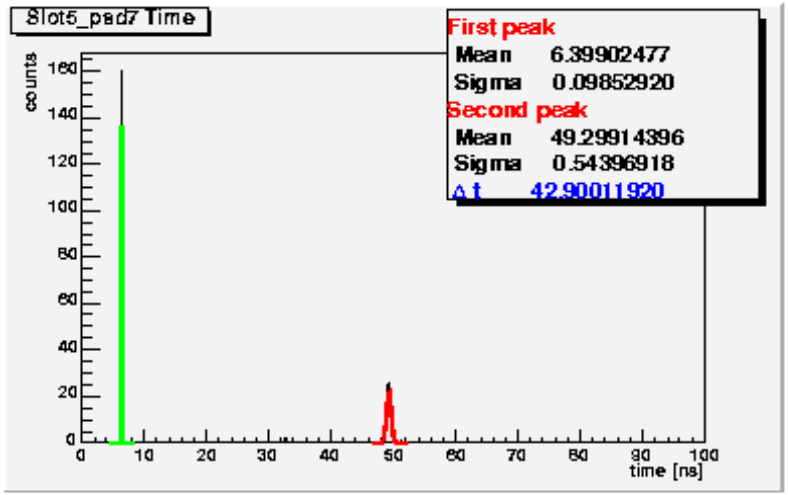
Visualization

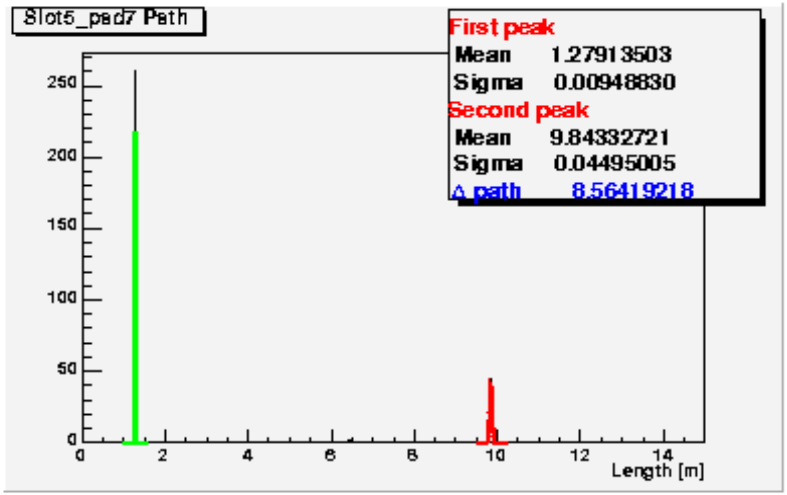


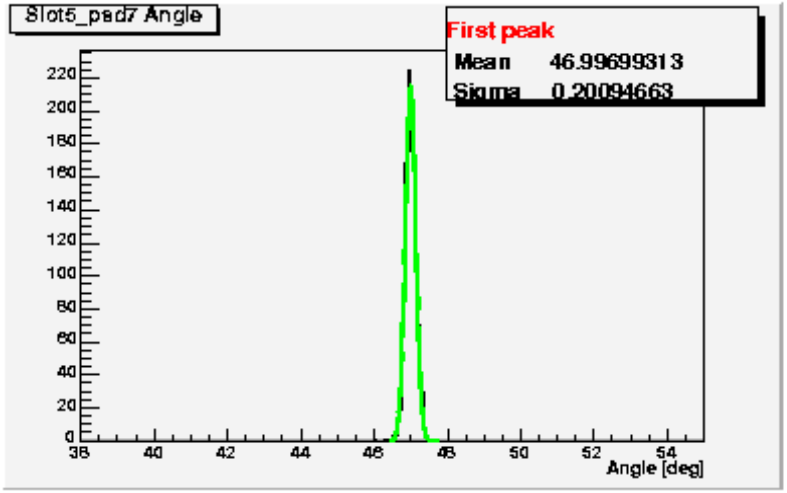


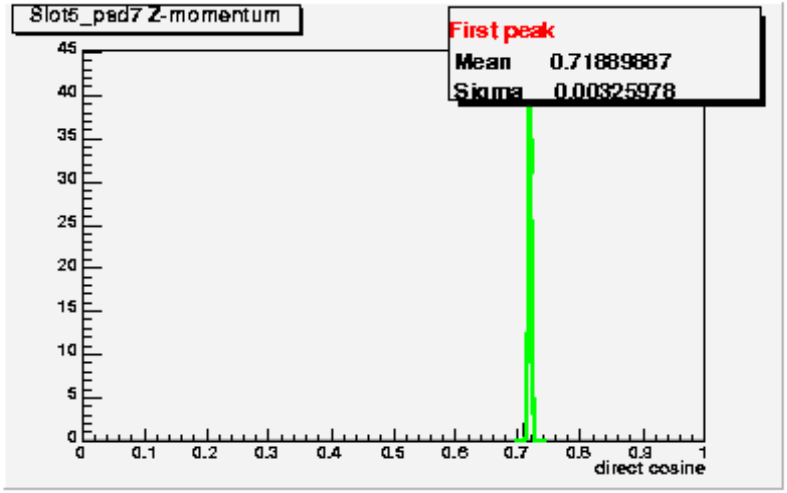
Root analysis

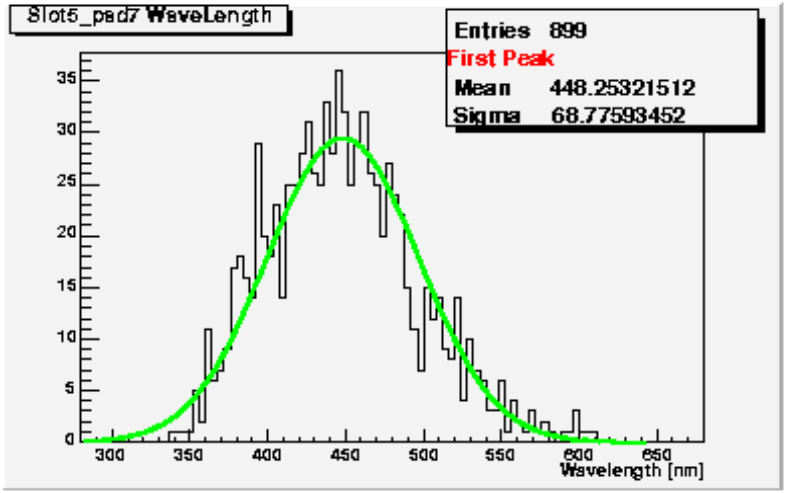


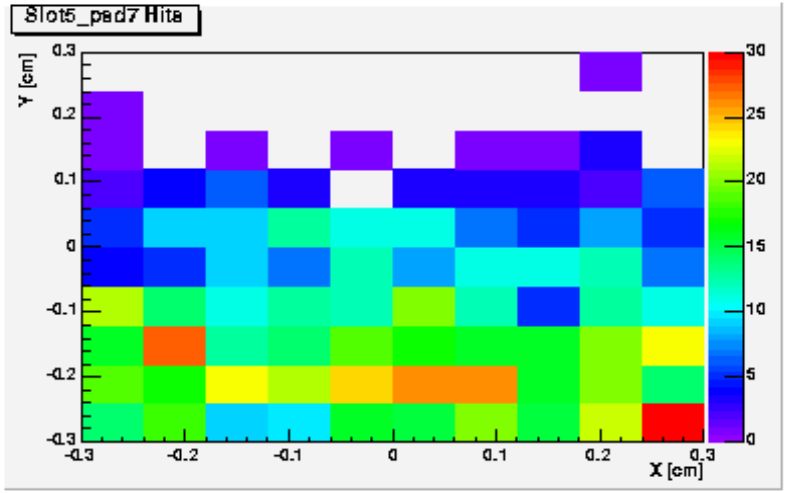

Slot5_pad7 Time
First peak
Mean 6.39902477
Sigma 0.09852920
Second peak
Mean 49.29914396
Sigma 0.54396918
Δ t 42.90011920
counts
time [ns]

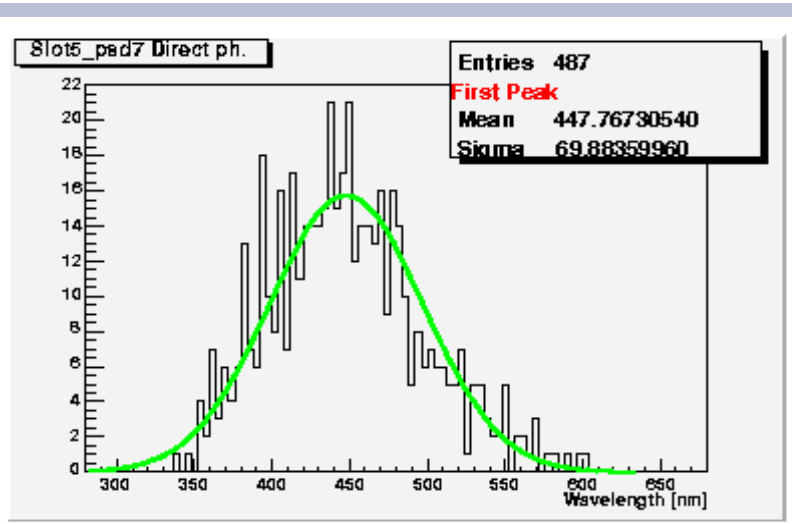

Slot5_pad7 Path
First peak
Mean 1.27913503
Sigma 0.00948830
Second peak
Mean 9.84332721
Sigma 0.04495005
Δ path 8.56419218
Length [m]

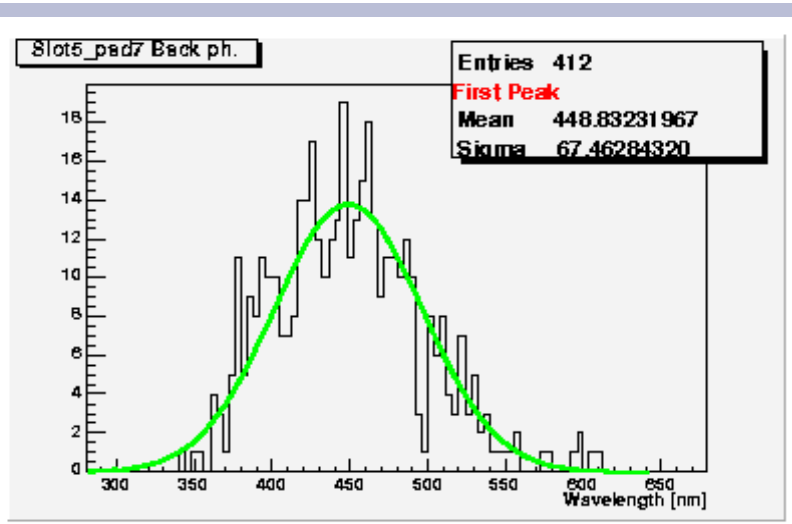

Slot5_pad7 Angle
First peak
Mean 46.99699313
Sigma 0.20094663
Angle [deg]

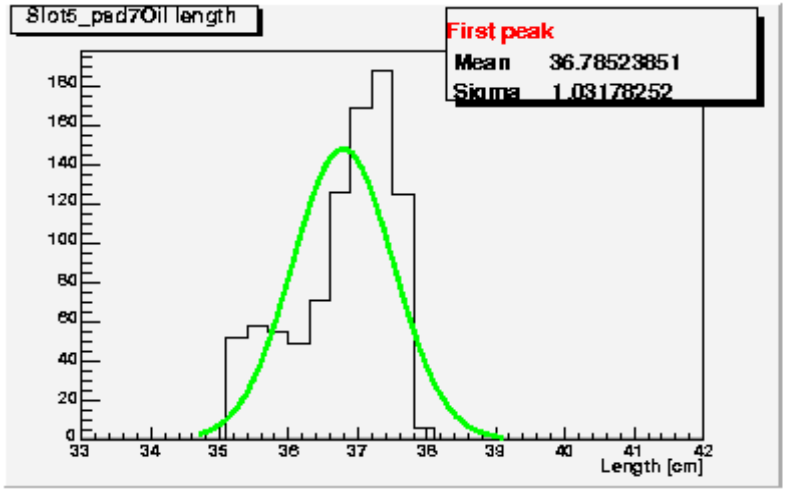

Slot5_pad7 Z-momentum
First peak
Mean 0.71889887
Sigma 0.00325978
direct cosine

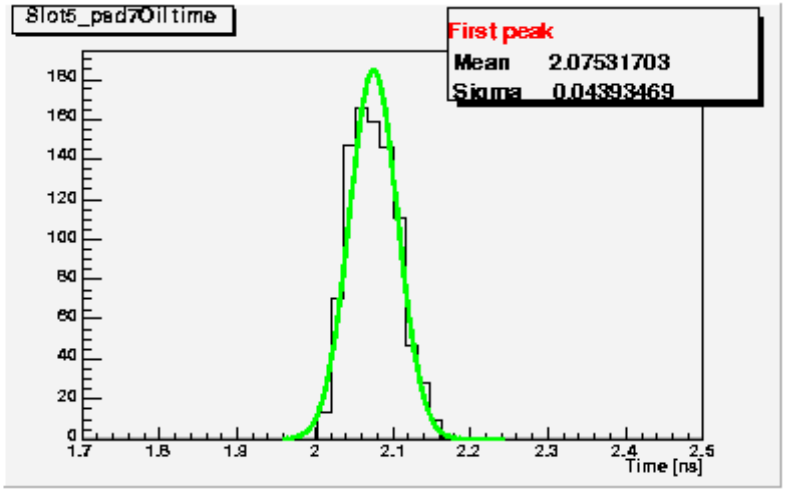

Slot5_pad7 WaveLength
Entries 899
First Peak
Mean 448.25321512
Sigma 68.77593452
Wavelength [nm]

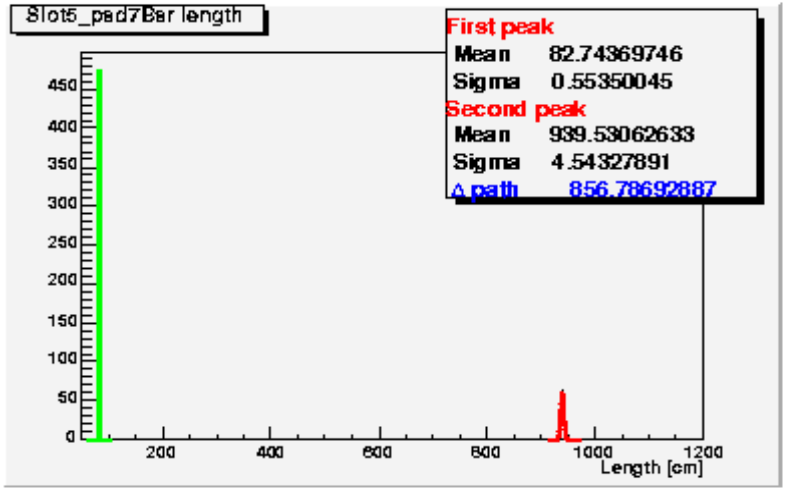

Slot5_pad7 Hits
Y [cm]
X [cm]

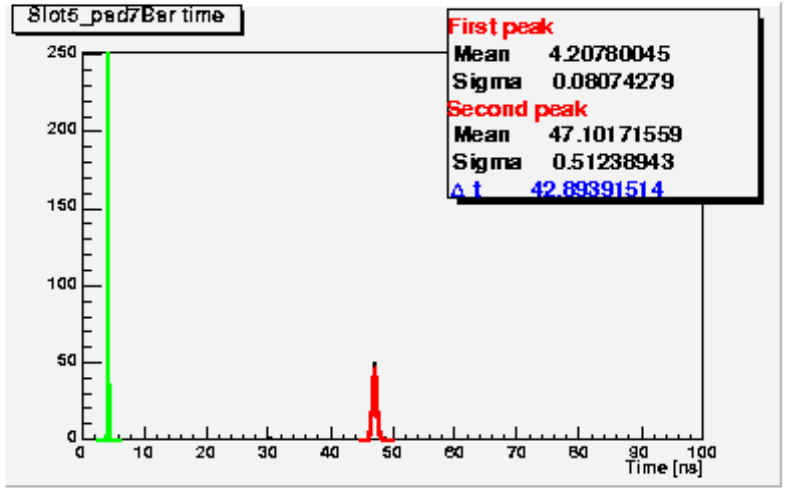

Slot5_pad7 Direct ph.
Entries 487
First Peak
Mean 447.76730540
Sigma 69.88359960
Wavelength [nm]


Slot5_pad7 Back ph.
Entries 412
First Peak
Mean 448.83231967
Sigma 67.46284320
Wavelength [nm]


Slot5_pad7Oil length
First peak
Mean 36.78523851
Sigma 1.03178252
Length [cm]


Slot5_pad7Oil time
First peak
Mean 2.07531703
Sigma 0.04393469
Time [ns]


Slot5_pad7Bar length
First peak
Mean 82.74369746
Sigma 0.55350045
Second peak
Mean 939.53062633
Sigma 4.54327891
Δ path 856.78692887
Length [cm]


Slot5_pad7Bar time
First peak
Mean 4.20780045
Sigma 0.08074279
Second peak
Mean 47.10171559
Sigma 0.51238943
Δ t 42.89391514
Time [ns]