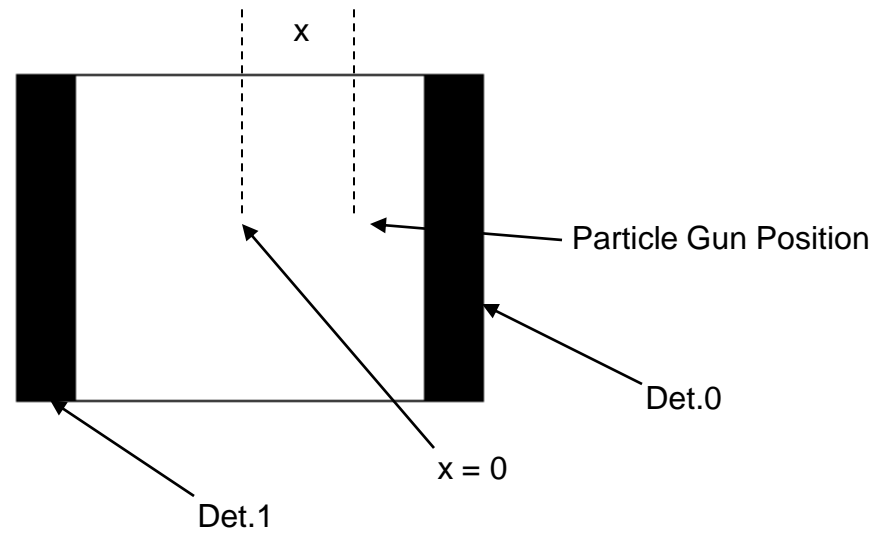


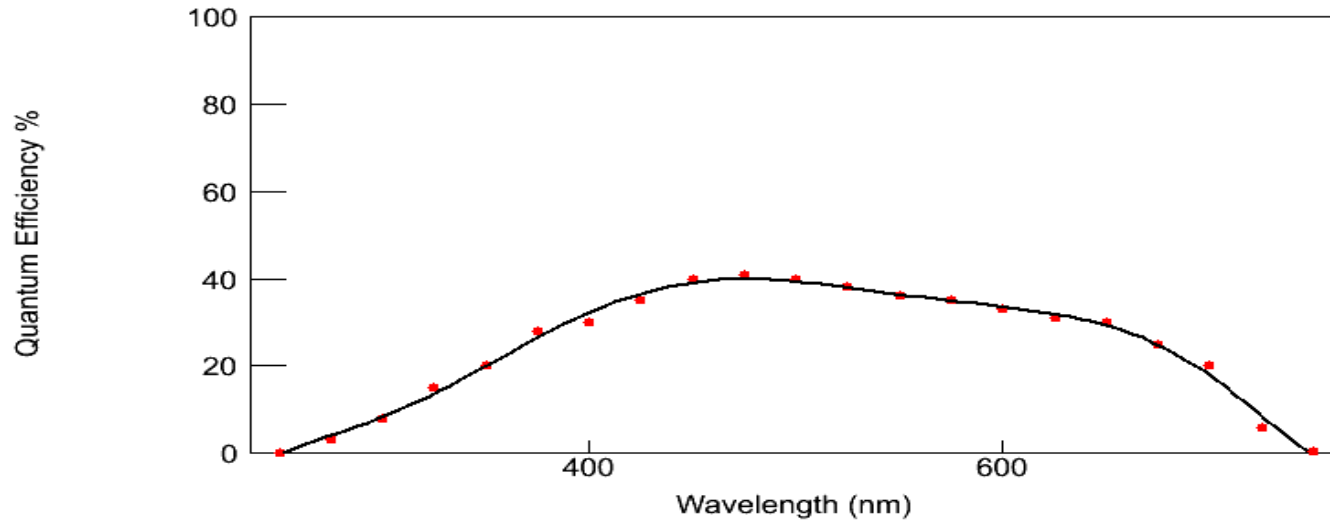
Simulation Setup

Cube: 2x2x2 cm³
2 Sens. Det. (x=-1,x=1)
Crystal: BGO
Surface: Polished

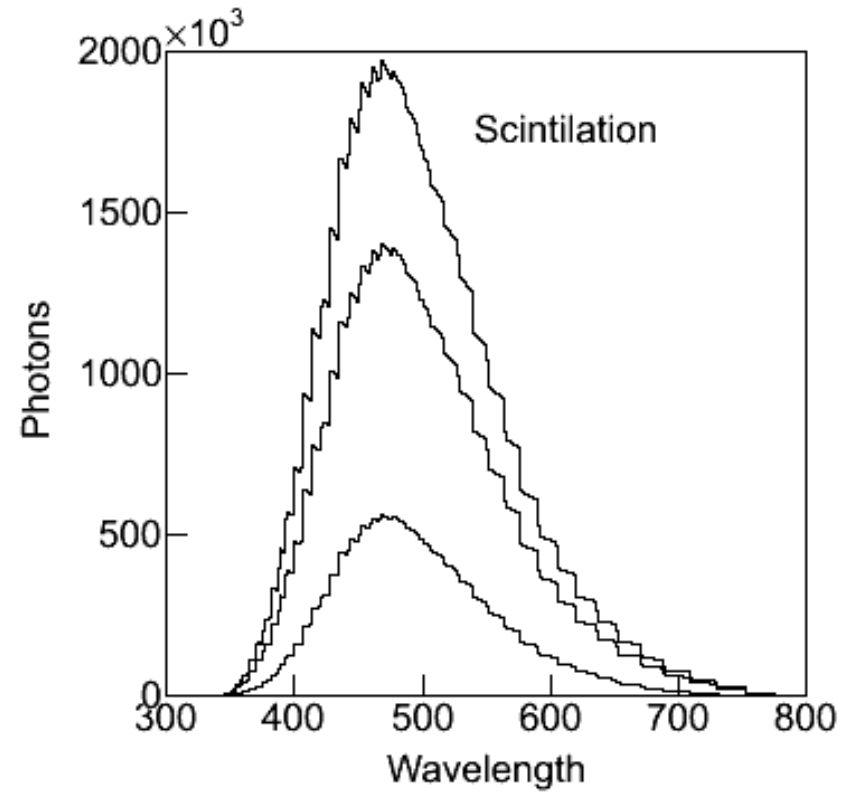
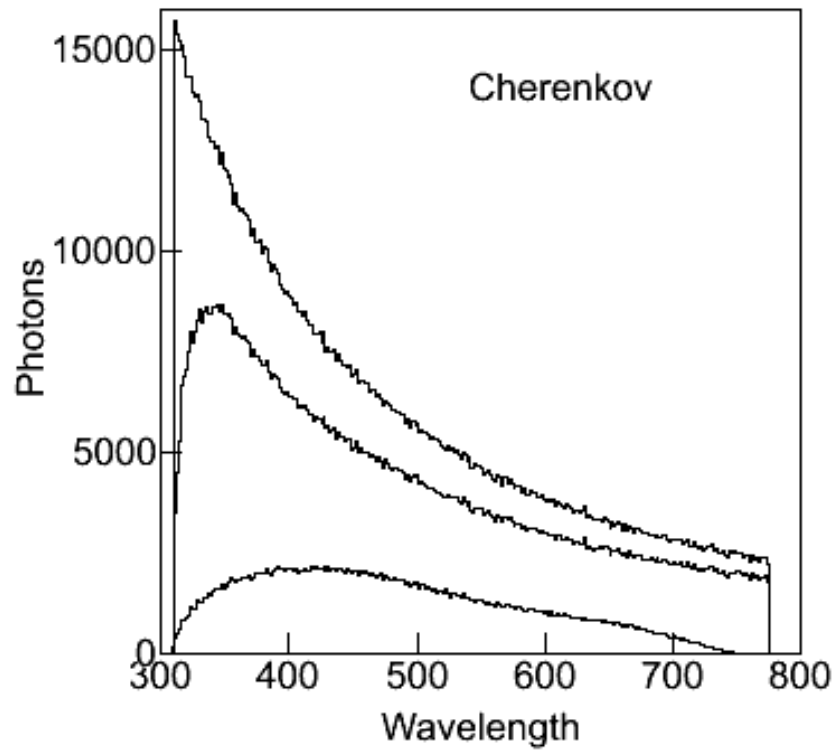


Quantum Efficiency

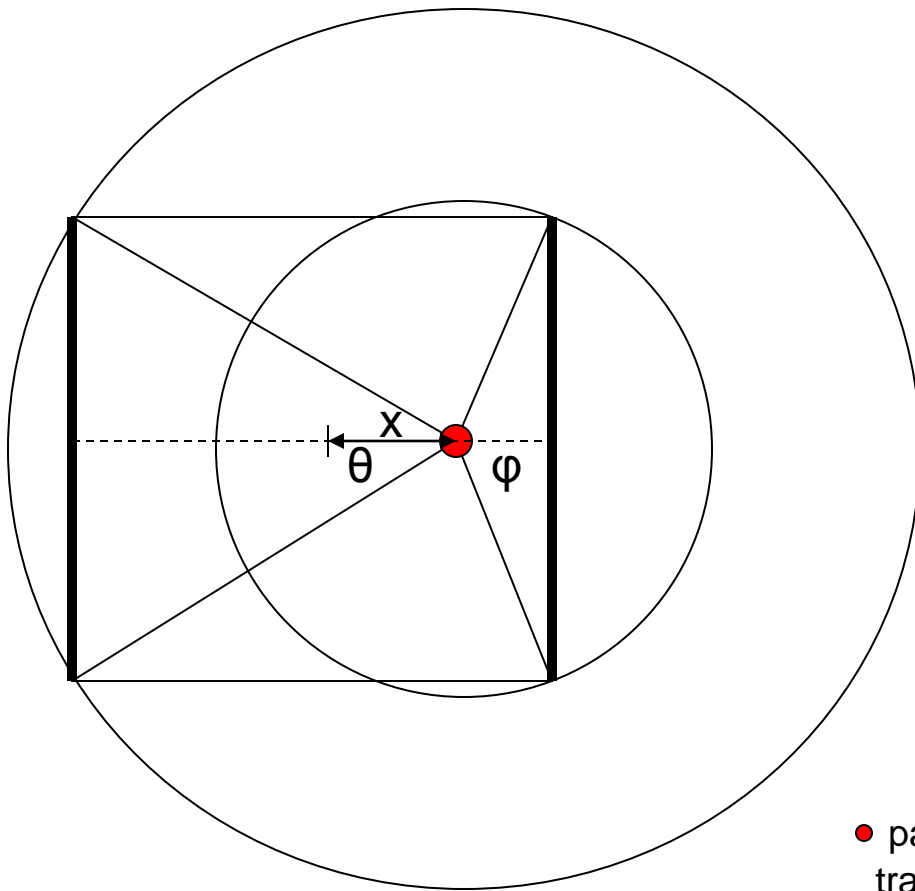
$$1.215435 \cdot 10^{-15} \cdot x^7 - 4.2251872 \cdot 10^{-12} \cdot x^6 + 6.1263248 \cdot 10^{-09} \cdot x^5 - 4.7909616 \cdot 10^{-06} \cdot x^4 + 0.0021767518 \cdot x^3 - 0.57372701 \cdot x^2 + 81.409558 \cdot x - 4817.2722$$



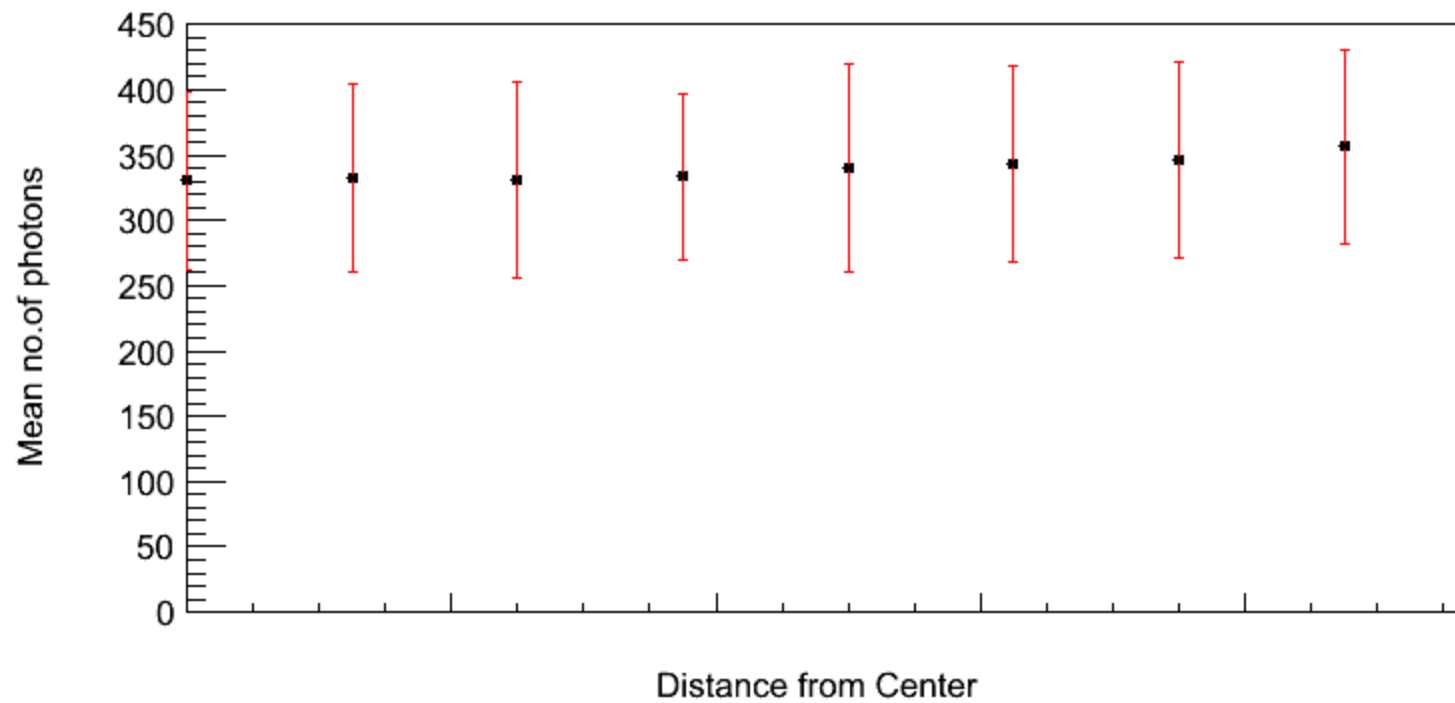
Wavelength distribution for Cherenkov – Scintillation photons



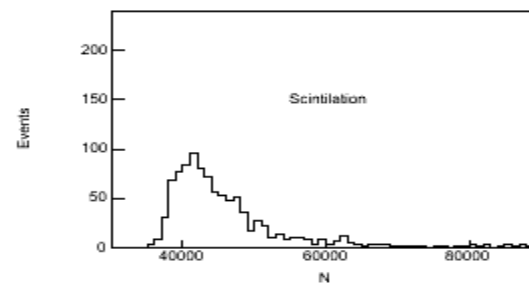
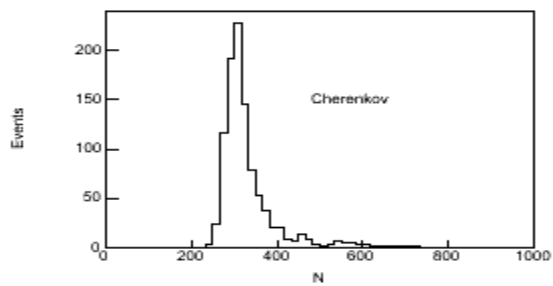
Approximation on photon yield to x
by angle calculation



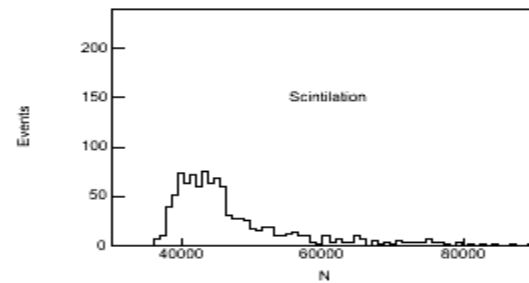
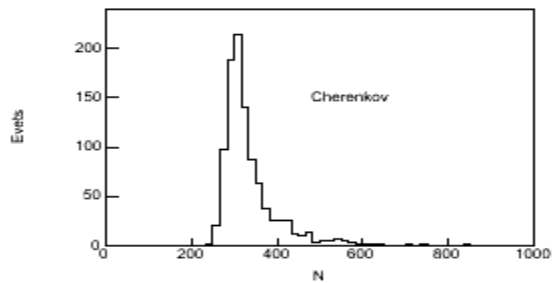
● particle perpendicular trajectory



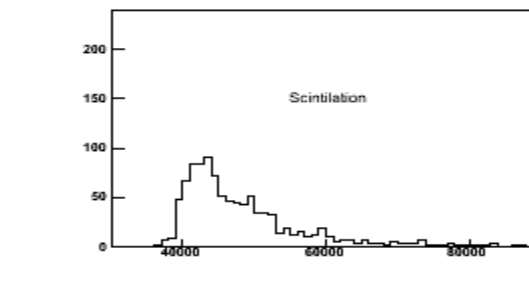
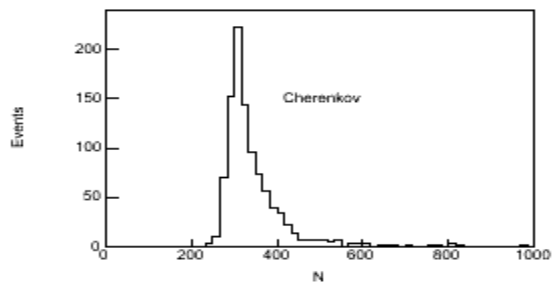
$x=0\text{mm}$



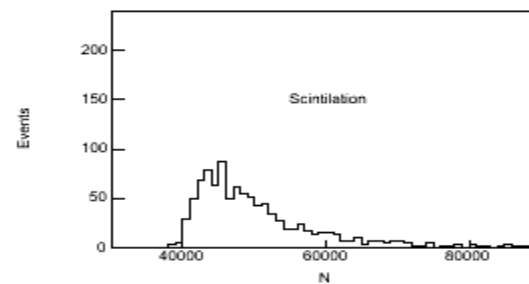
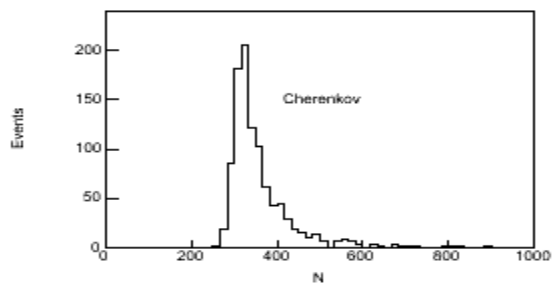
$x=3.75\text{mm}$

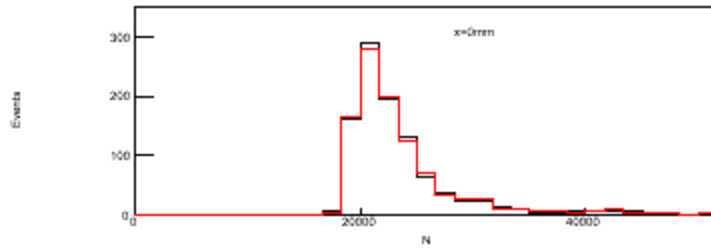


$x=6.25\text{mm}$

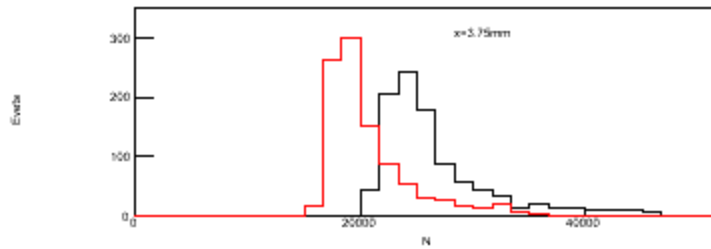


$x=8.75\text{mm}$

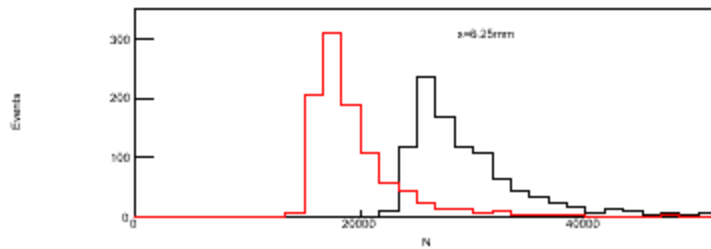




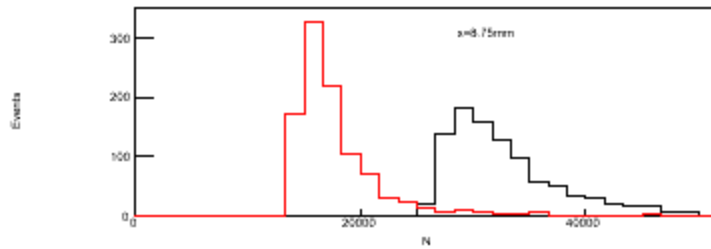
	Detector 0	Detector 1	Ratio
Cerenkov	Mean:166 RMS: 43.8	Mean:166.3 RMS:41.3	1.002
Total	Mean: 2.37×10^4 RMS: 0.58×10^4	Mean: 2.37×10^4 RMS: 0.57×10^4	1



	Detector 0	Detector 1	Ratio
Cerenkov	Mean:185 RMS: 40.8	Mean:148.6 RMS:32.4	0.799
Total	Mean: 2.69×10^4 RMS: 0.62×10^4	Mean: 2.09×10^4 RMS: 0.49×10^4	0.778



	Detector 0	Detector 1	Ratio
Cerenkov	Mean:204 RMS: 45.6	Mean:138.9 RMS:32.5	0.681
Total	Mean: 3.01×10^4 RMS: 0.71×10^4	Mean: 1.96×10^4 RMS: 0.48×10^4	0.651



	Detector 0	Detector 1	Ratio
Cerenkov	Mean:227.2 RMS: 47.8	Mean:129.8 RMS:30.1	0.571
Total	Mean: 3.39×10^4 RMS: 0.76×10^4	Mean: 1.79×10^4 RMS: 0.46×10^4	0.465