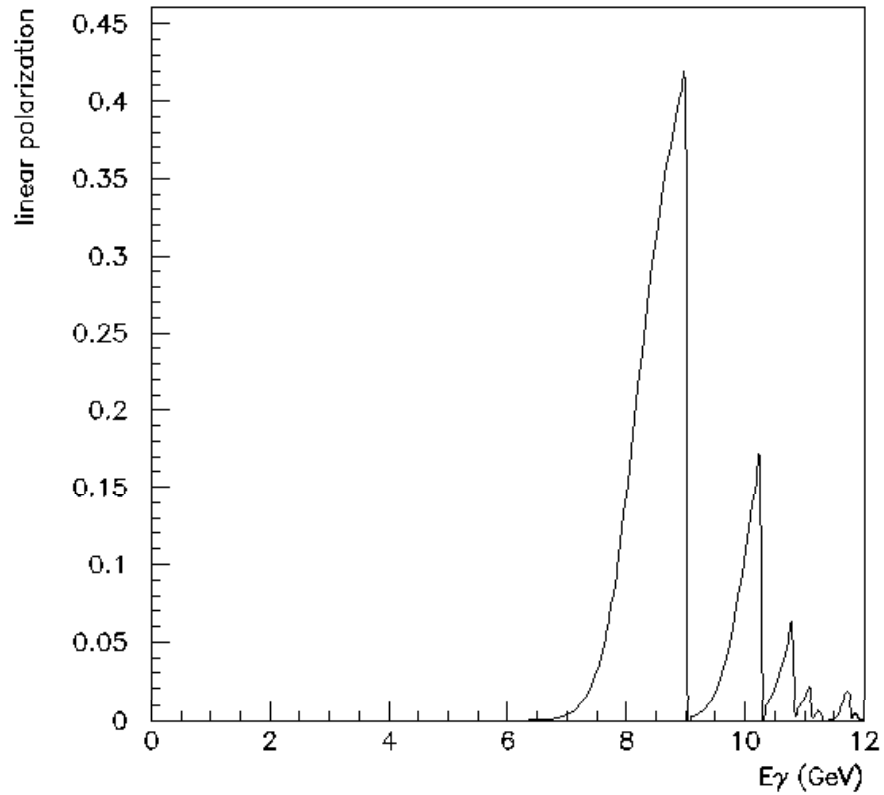
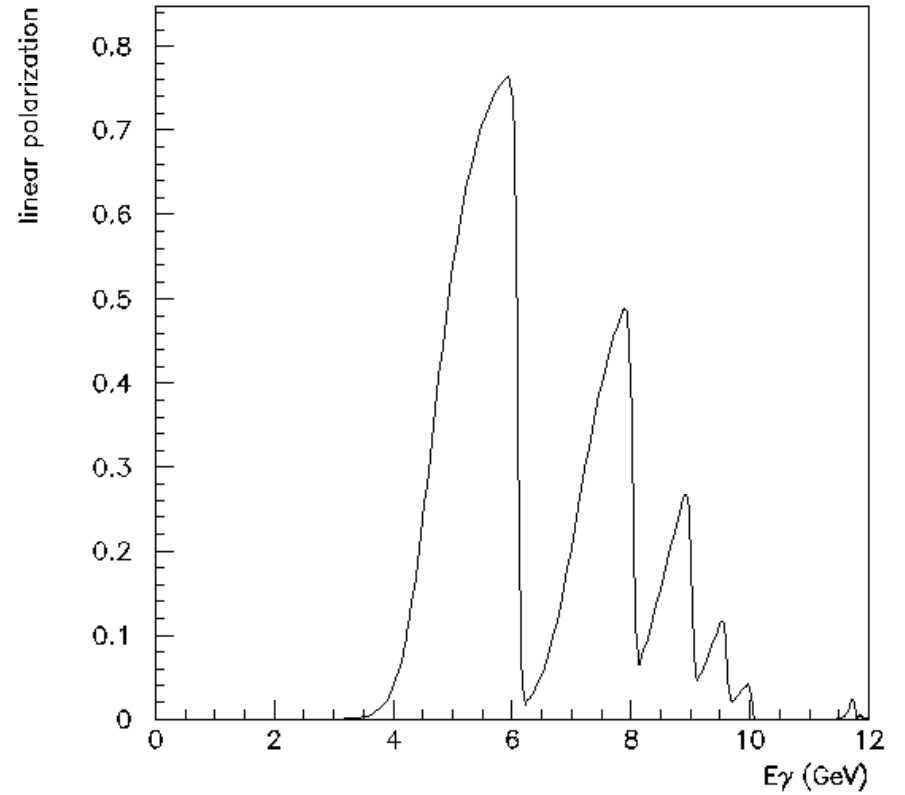


Comparing beam figure-of-merit at 9 GeV with 6 GeV

Polarization peak at 9 GeV

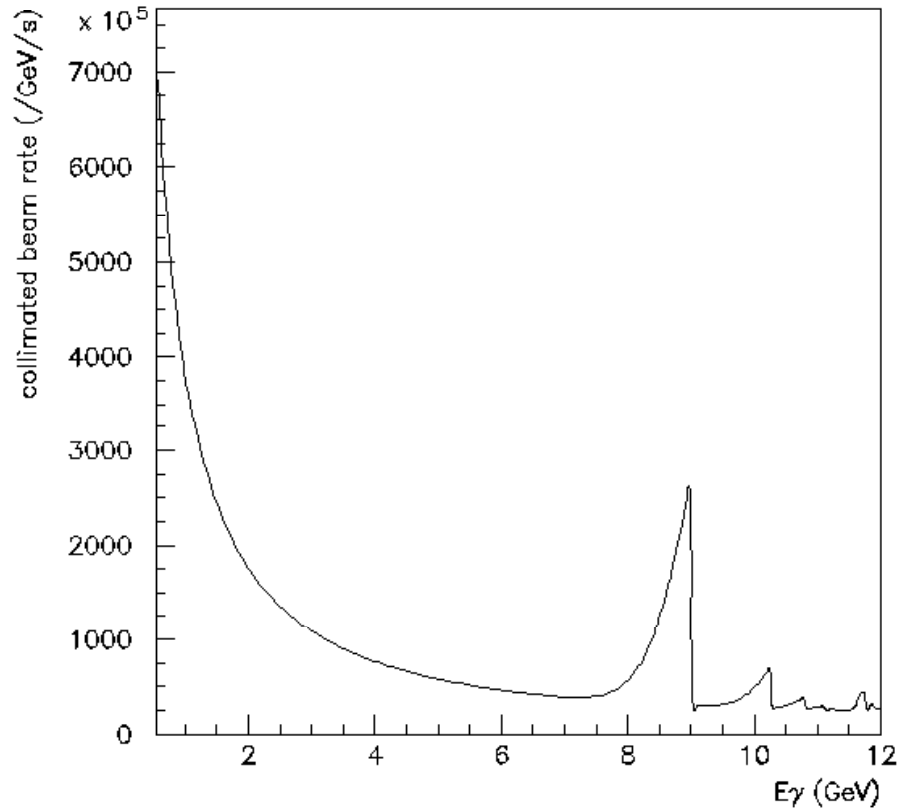


Polarization peak at 6 GeV



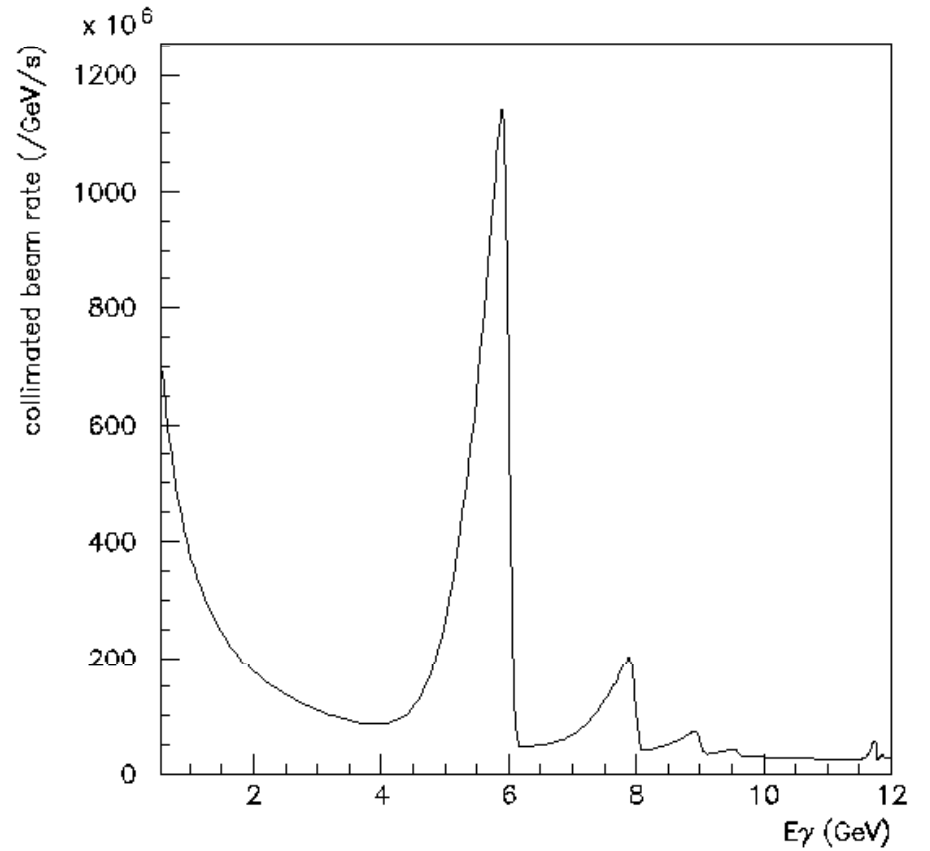
Increase in peak polarization = $\times 1.7$

Polarization peak at 9 GeV



Events 0.1 to 8 GeV = 1.8×10^9
 Events 8 to 9 GeV = 1.3×10^8
 Events 9 to 12 GeV = 9.9×10^7
 Events in peak/Events outside of peak = .068

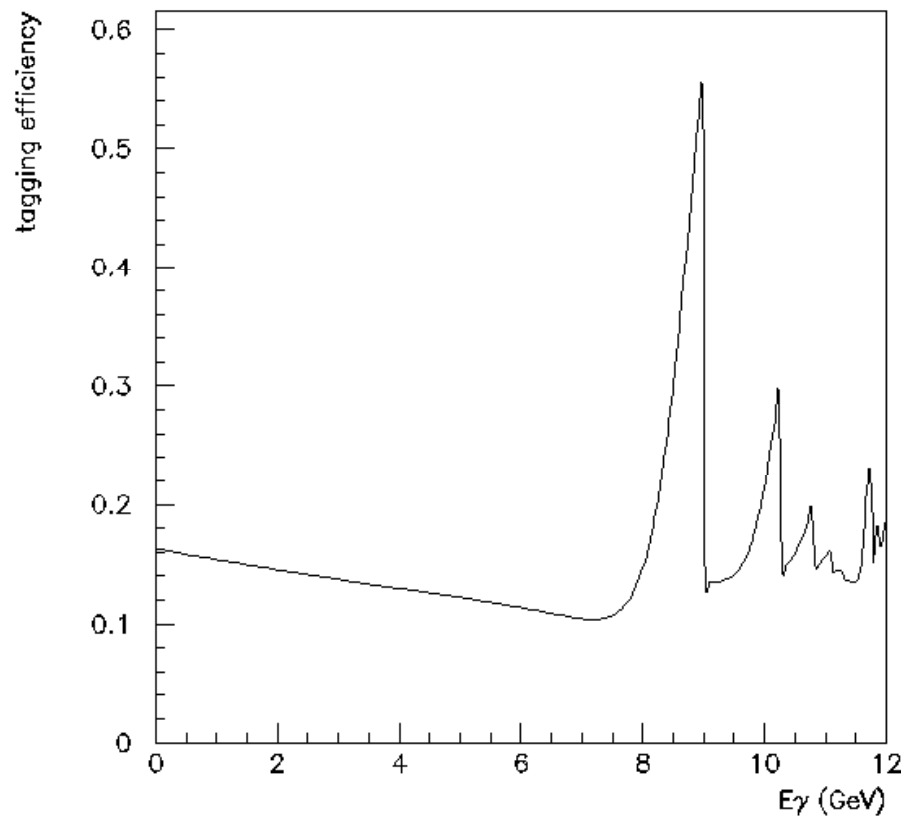
Polarization peak at 6 GeV



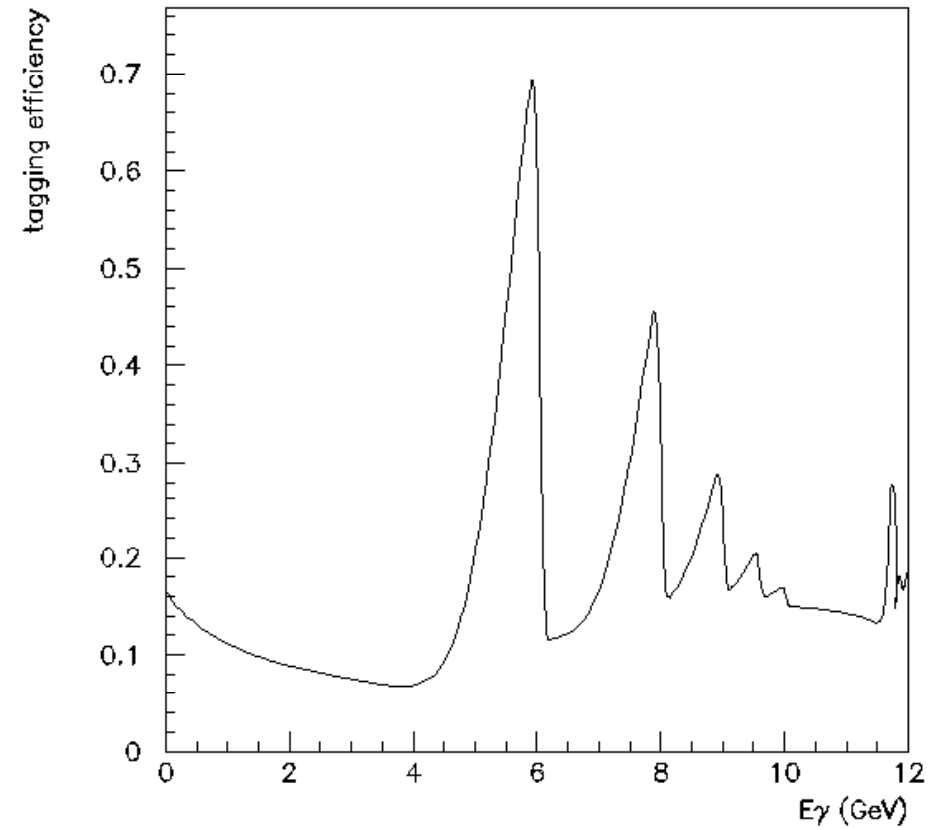
Events 0.1 to 5 GeV = 1.7×10^9
 Events 5 to 6 GeV = 6.6×10^8
 Events 6 to 12 GeV = 3.5×10^8
 Events in peak/Events outside of peak = .32

Increase in signal/background= $\times 4.7$

Polarization peak at 9 GeV



Polarization peak at 6 GeV



Increase in peak tag eff. = $\times 1.3$

Beam figure of merit = $P^2 \times (\text{Photons in peak/Photons out of peak}) \times (\text{Tagging eff.})$

The F.O.M. increase in moving the polarization peak from 9 GeV to 6 GeV is

$$1.7^2 \times 4.7 \times 1.3 = 18$$