

# Pure Photon Beam

**Place dipole right after radiator to bend  $e^-$  beam to a local dump**

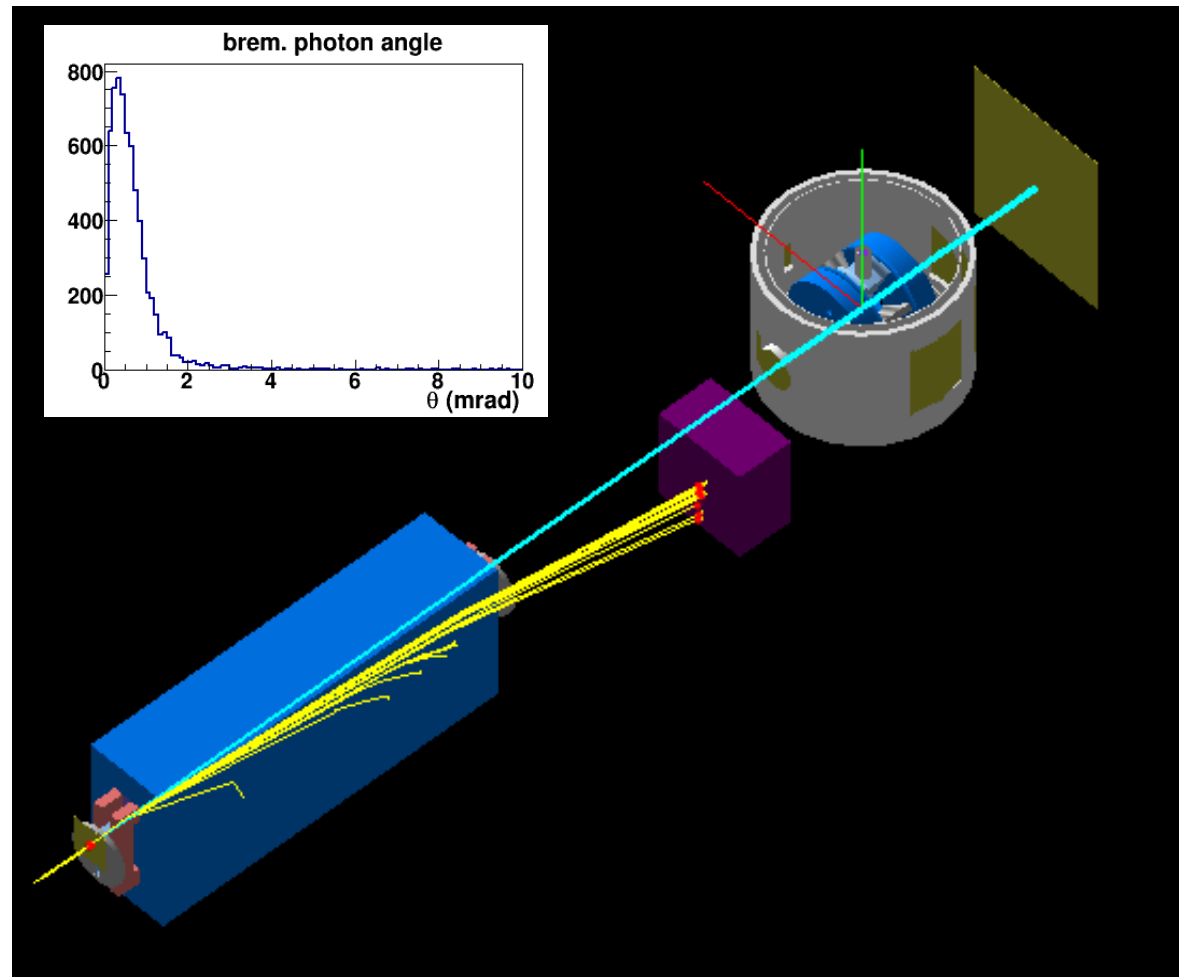
Brem. photon dispersion = 6 mm

Beam electron deflection  $\approx 45$  cm

Need to setup shielding

## Advantages:

- 1) Target averaged polarization increases from 70% to  $\sim 90\%$ , F.O.M increases by  $\sim 1.7$
- 2) Target depolarization is much slower than electron beam
- 3) Can increase beam current from 100 nA to 400 nA or higher
- 4) Overhead time is greatly reduced: fewer anneals, target changes and TE measurements (associated with target changes)



**6% copper radiator located at -4.5m (upstream)  
FZ magnet located at -3.3m,  $BdL=3.1$  Tesla.meter  
Local dump at -0.8m (15 cm lead,  $\sim 27$  radiation length)**