

**Angular Dispersion with BT electron:  
Data-v7r1117p1 Vs MC-v7r1117p1**

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# Summary

- Angular resolution:

$$\text{Cos}(BeamTkr1) = \text{cos}(XthetaBeam)*Tkr1XDir + \text{cos}(YthetaBeam)*Tkr1YDir + \text{cos}(ZThetaBeam)*Tkr1ZDir$$

- The alignment procedure has been applied both real and MC data

- For the MC we can also evaluate

- True PSF:

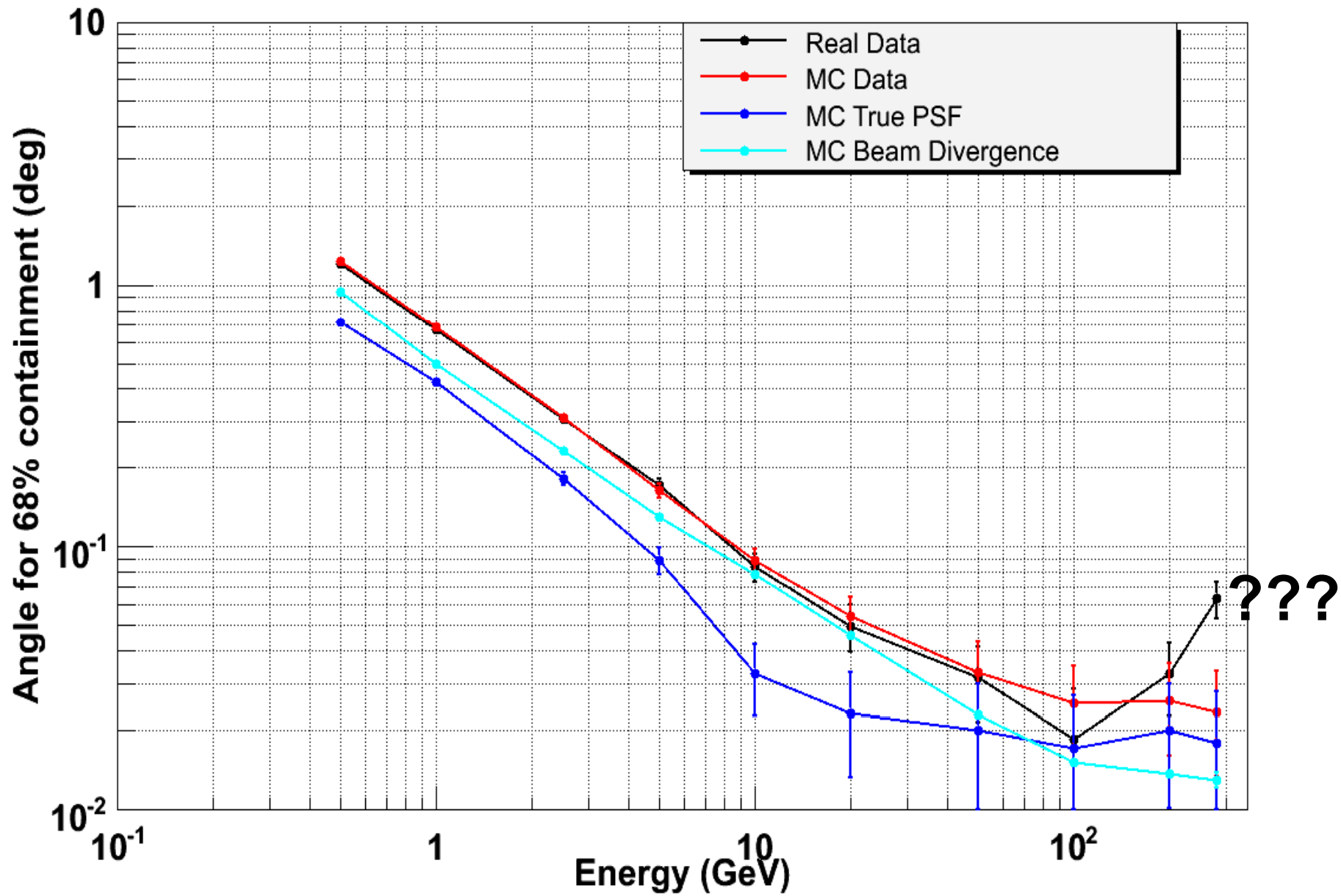
$$\text{Cos}(Tkr1CU) = \text{McXDir}*Tkr1XDir + \text{McYDir}*Tkr1YDir + \text{McZDir}*Tkr1ZDir$$

- Beam divergence:

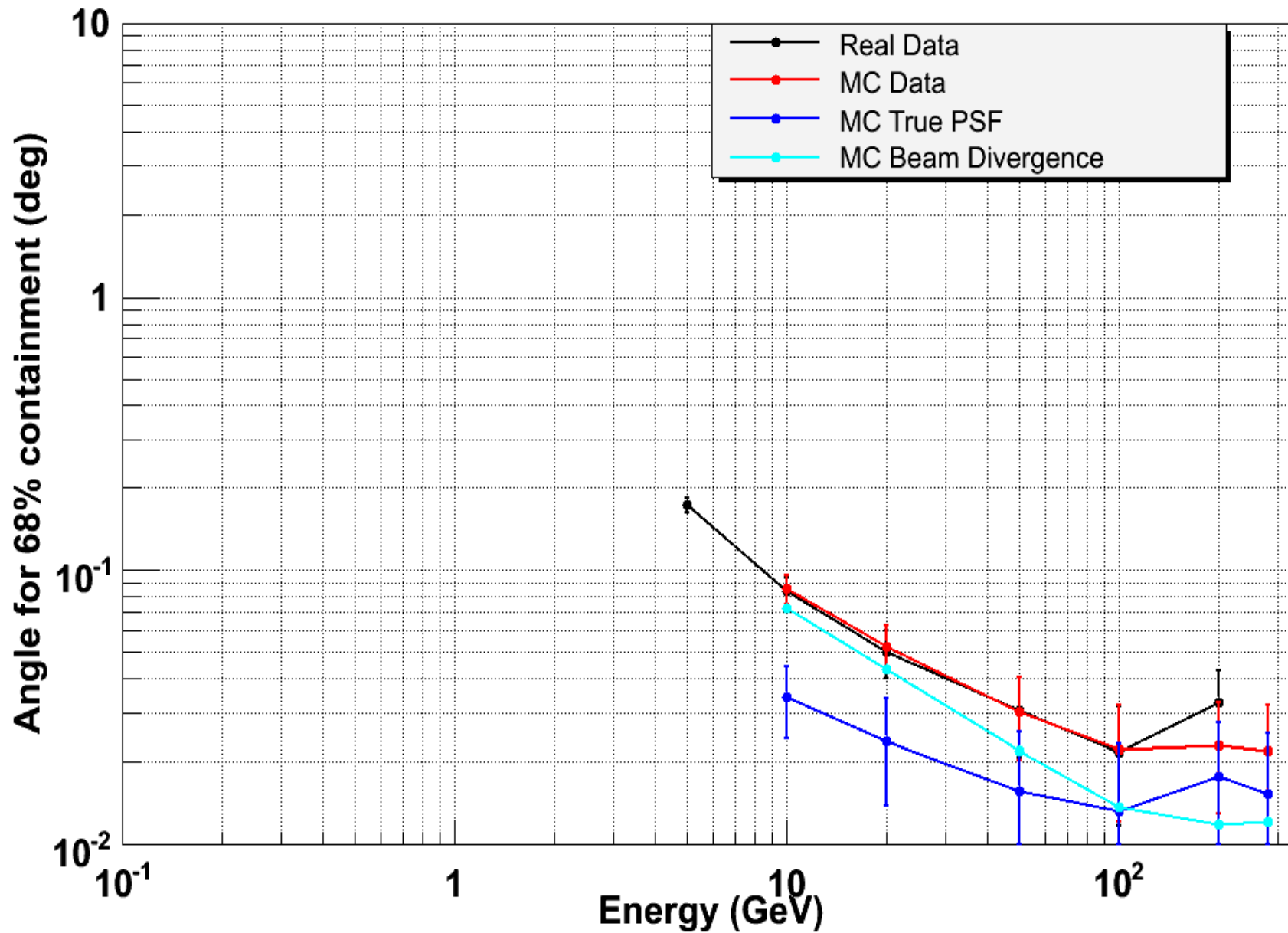
$$\text{Cos}(BeamCU) = \text{cos}(XthetaBeam)*\text{McXDir} + \text{cos}(YthetaBeam)*\text{McYDir} + \text{cos}(ZThetaBeam)*\text{McZDir}$$

- Angular resolution = Beam diver  $\oplus$  Tkr1 resol

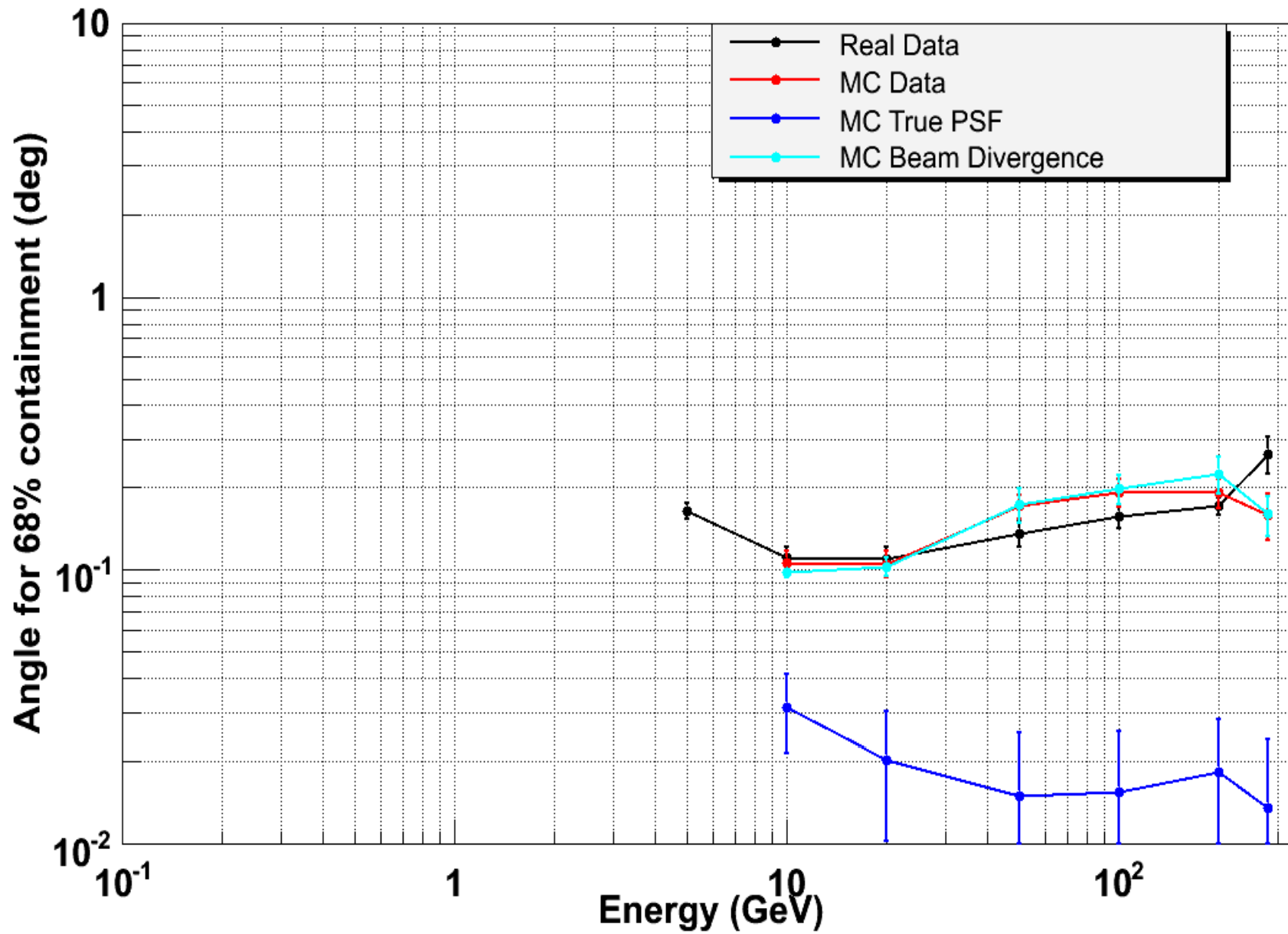
Angle for 68% containment (deg), Beam Incidence Angle = 0 deg



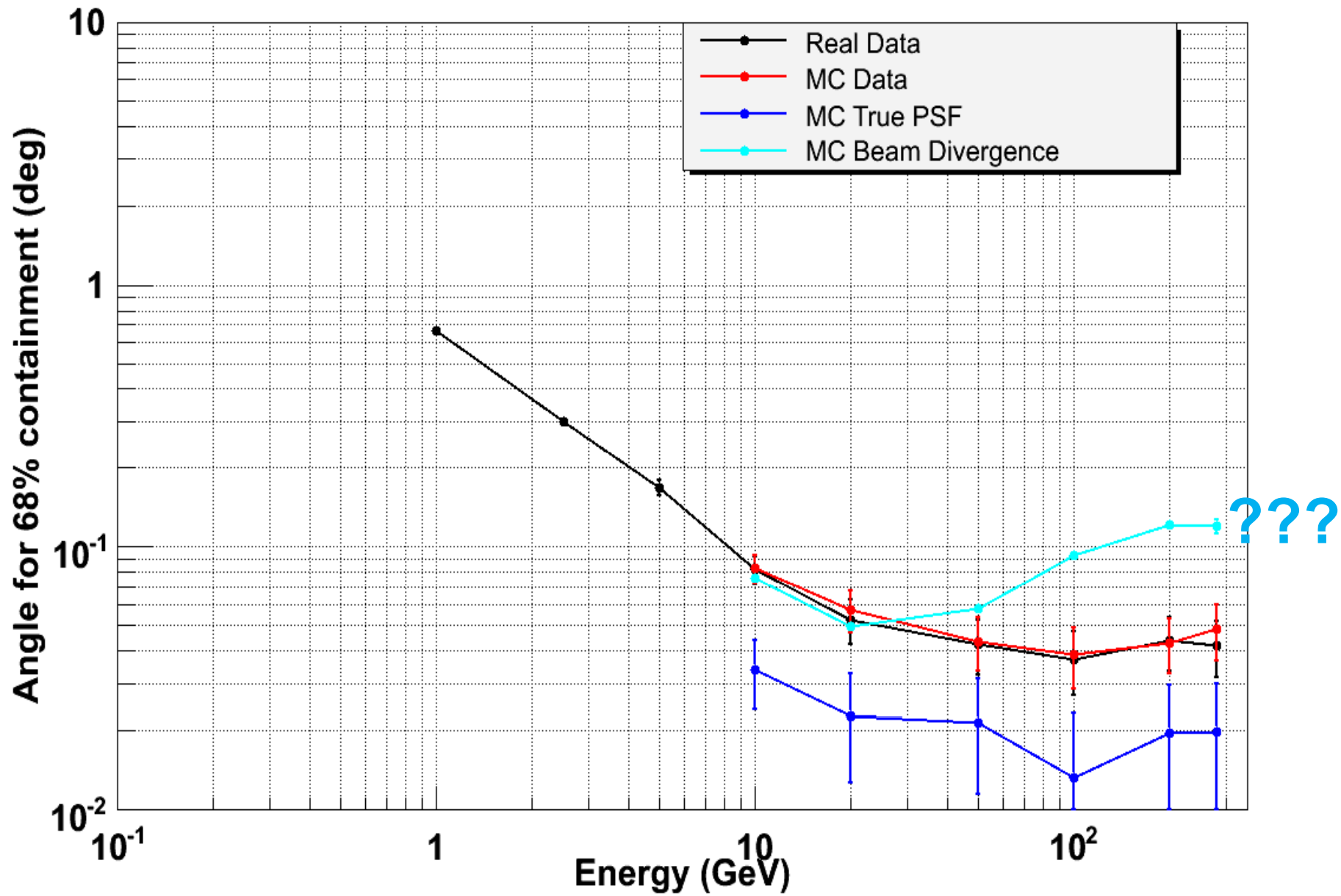
Angle for 68% containment (deg), Beam Incidence Angle = 10 deg



Angle for 68% containment (deg), Beam Incidence Angle = 20 deg

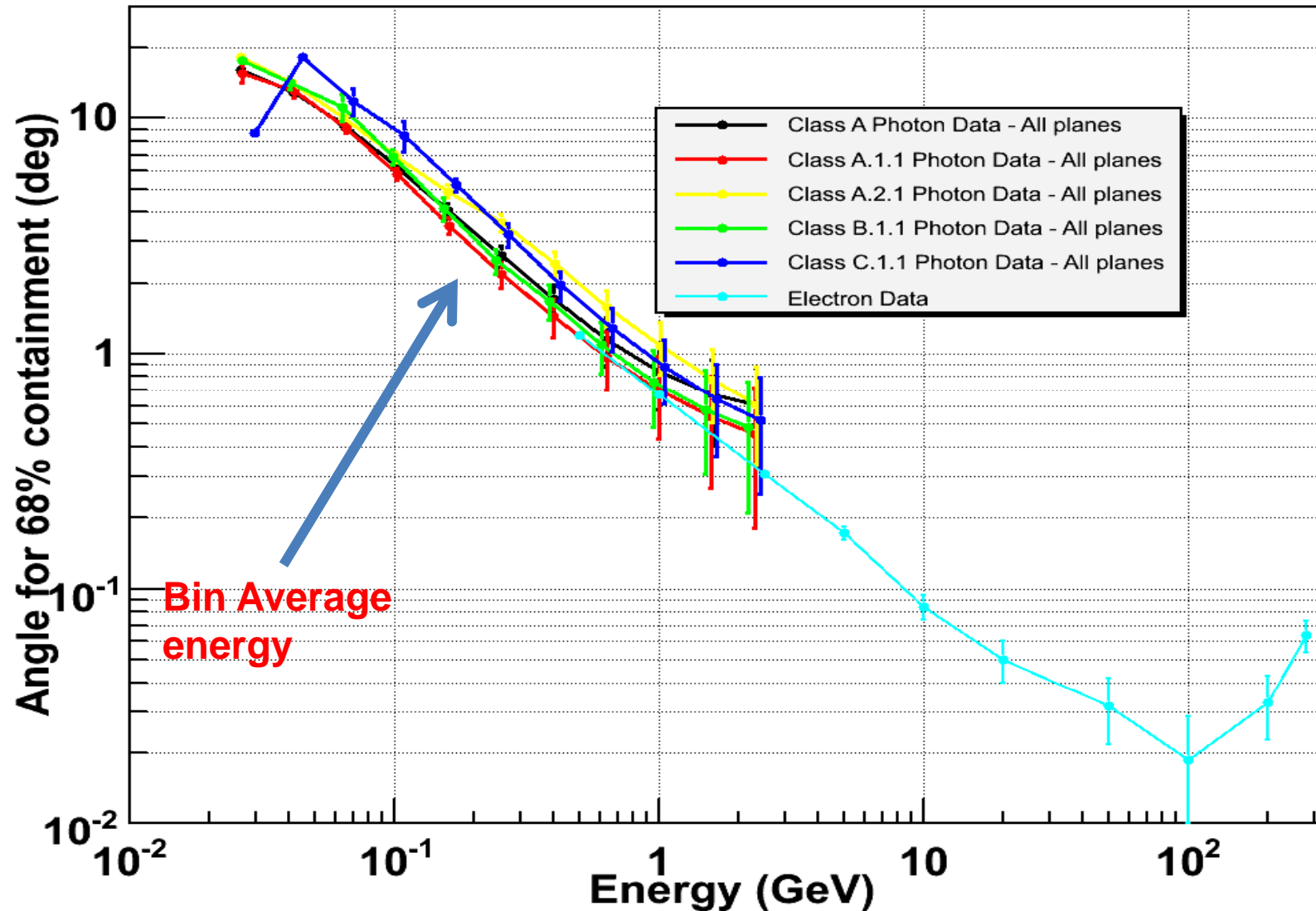


Angle for 68% containment (deg), Beam Incidence Angle = 30 deg



# Photon + Electron Data at 0 deg

Normal Beam Incidence



# Photon + Electron Data at 30 deg

30 deg Beam Incidence

