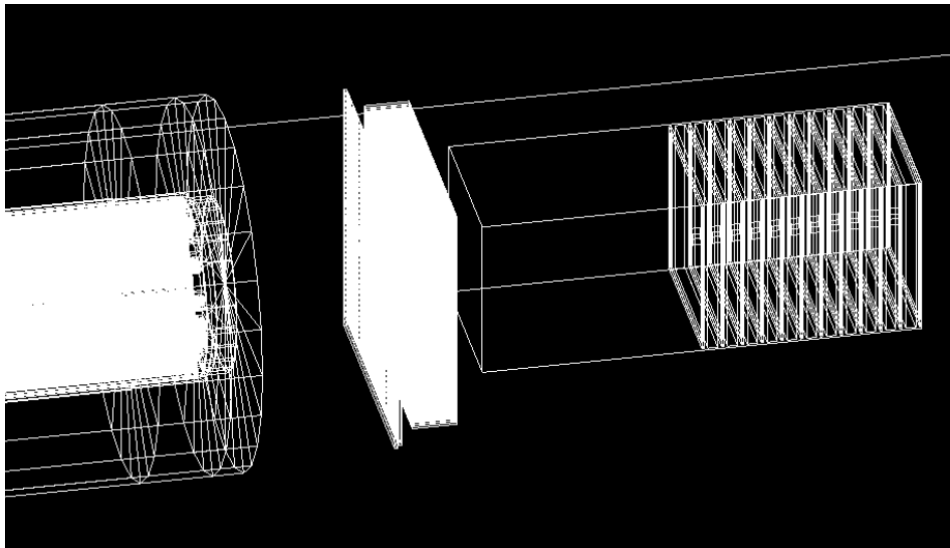
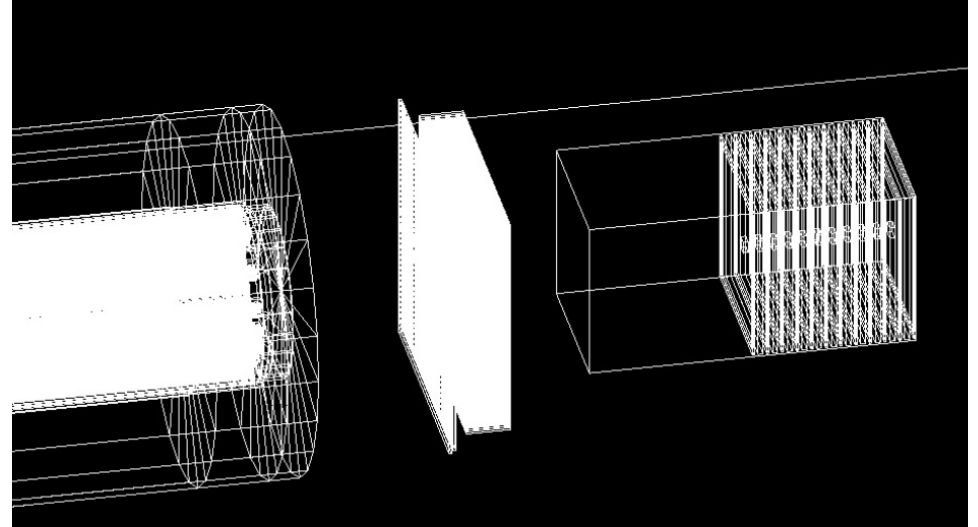


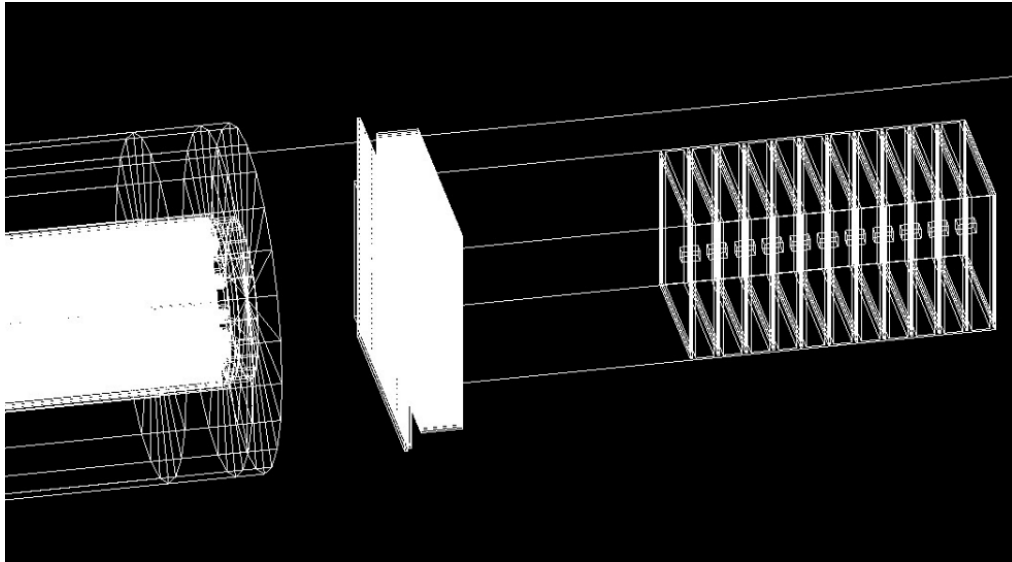
# CPP Simulation Update

- Tested several different geometries
- Issue with simulation reconstruction

Below: 12 detectors, 10 cm iron  
between each

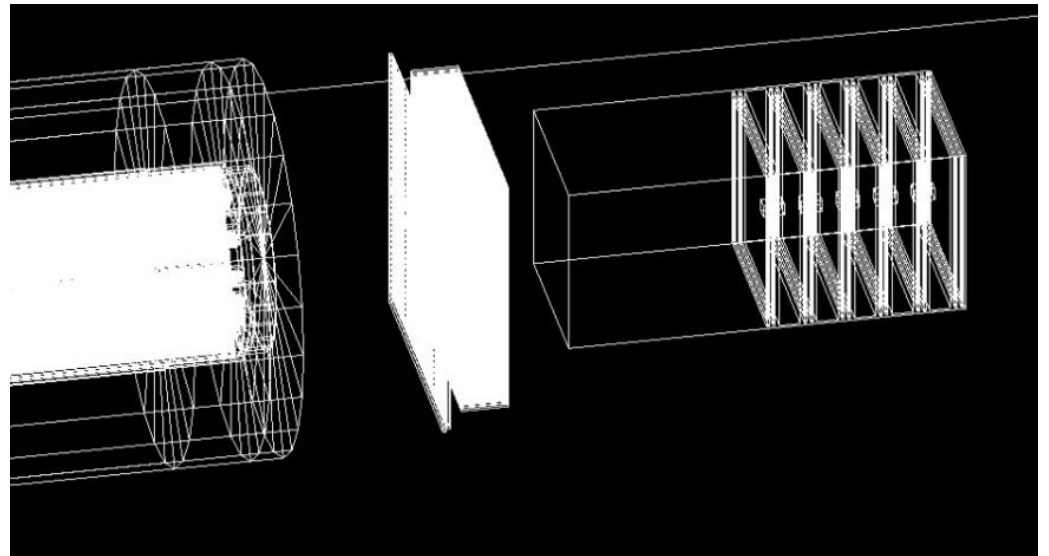


Above: 12 detectors, 5 cm iron  
between each

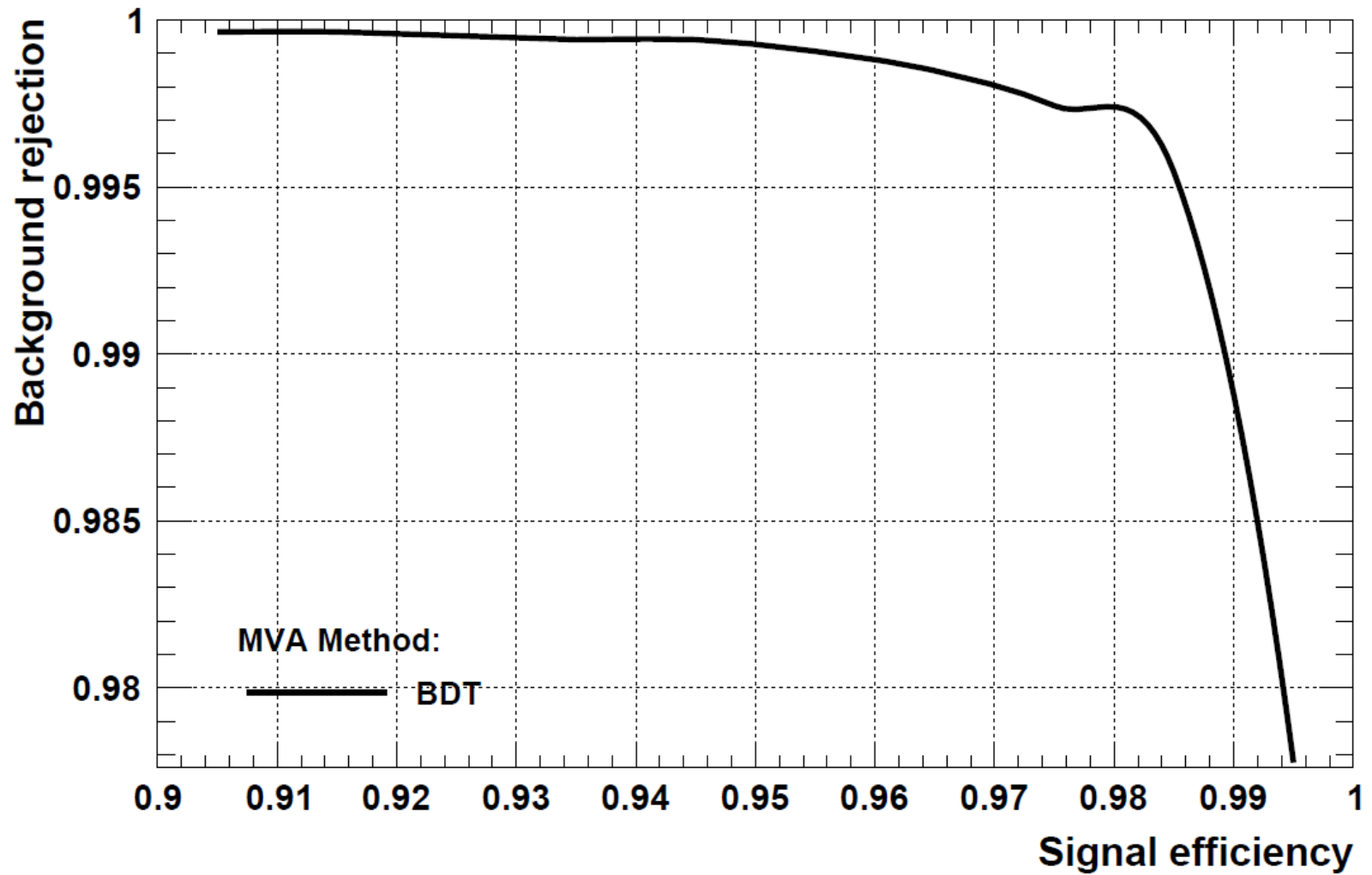


Above: 12 detectors, 20 cm iron between each

Below: 12 detectors, 20 cm iron between each package of two MWPCs

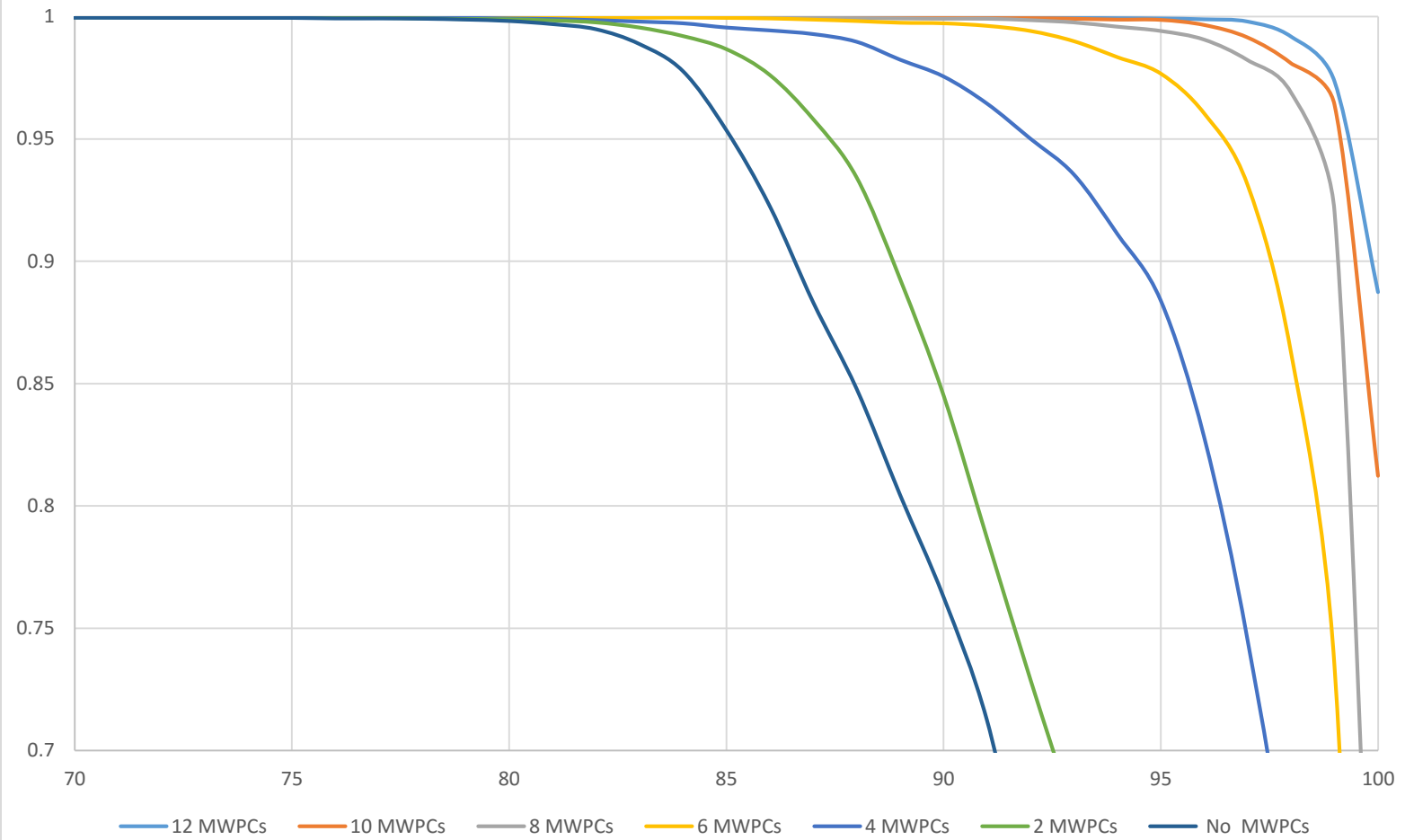


## Background rejection versus Signal efficiency

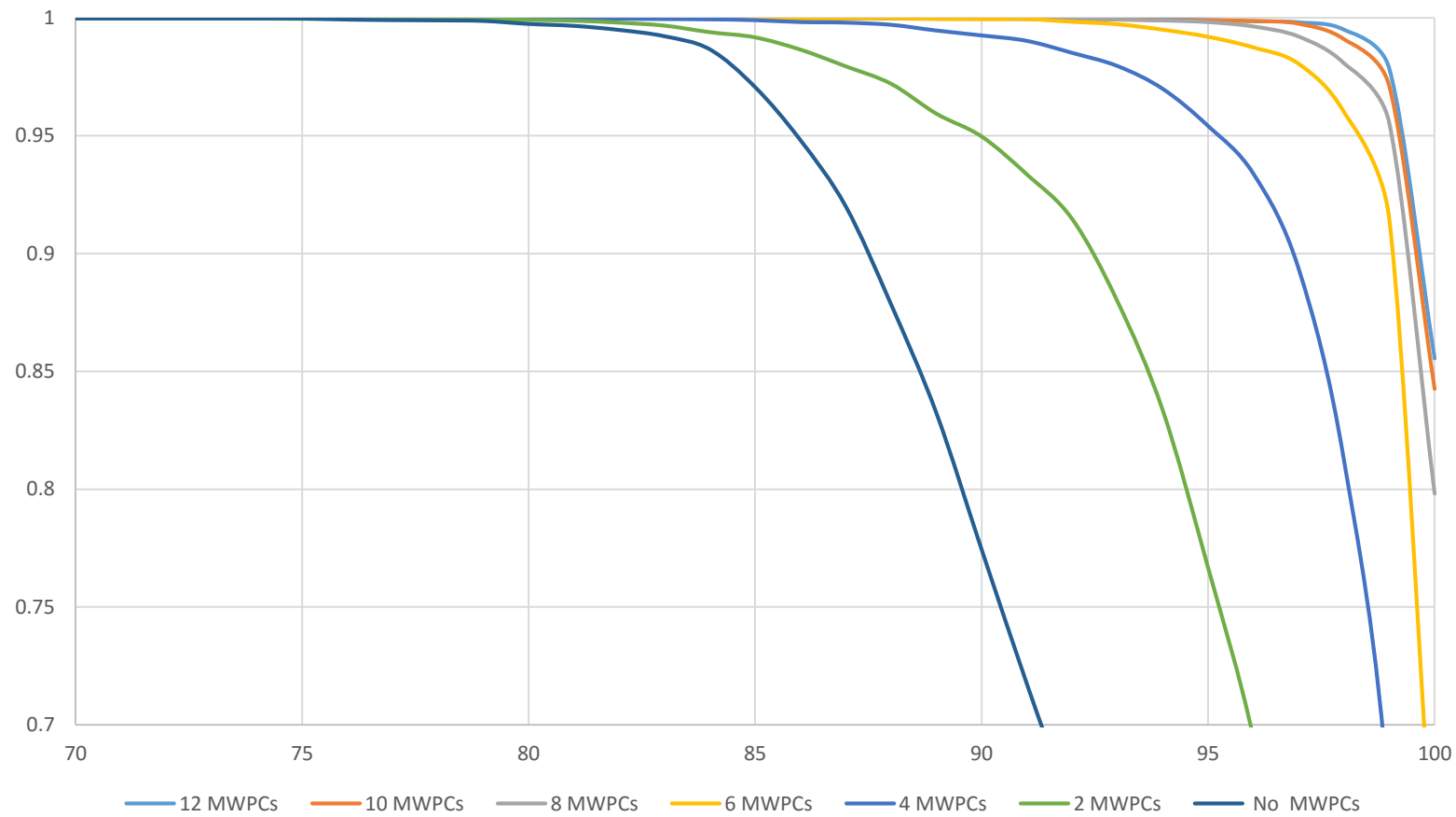


X\_20iron\_Y\_10\_D

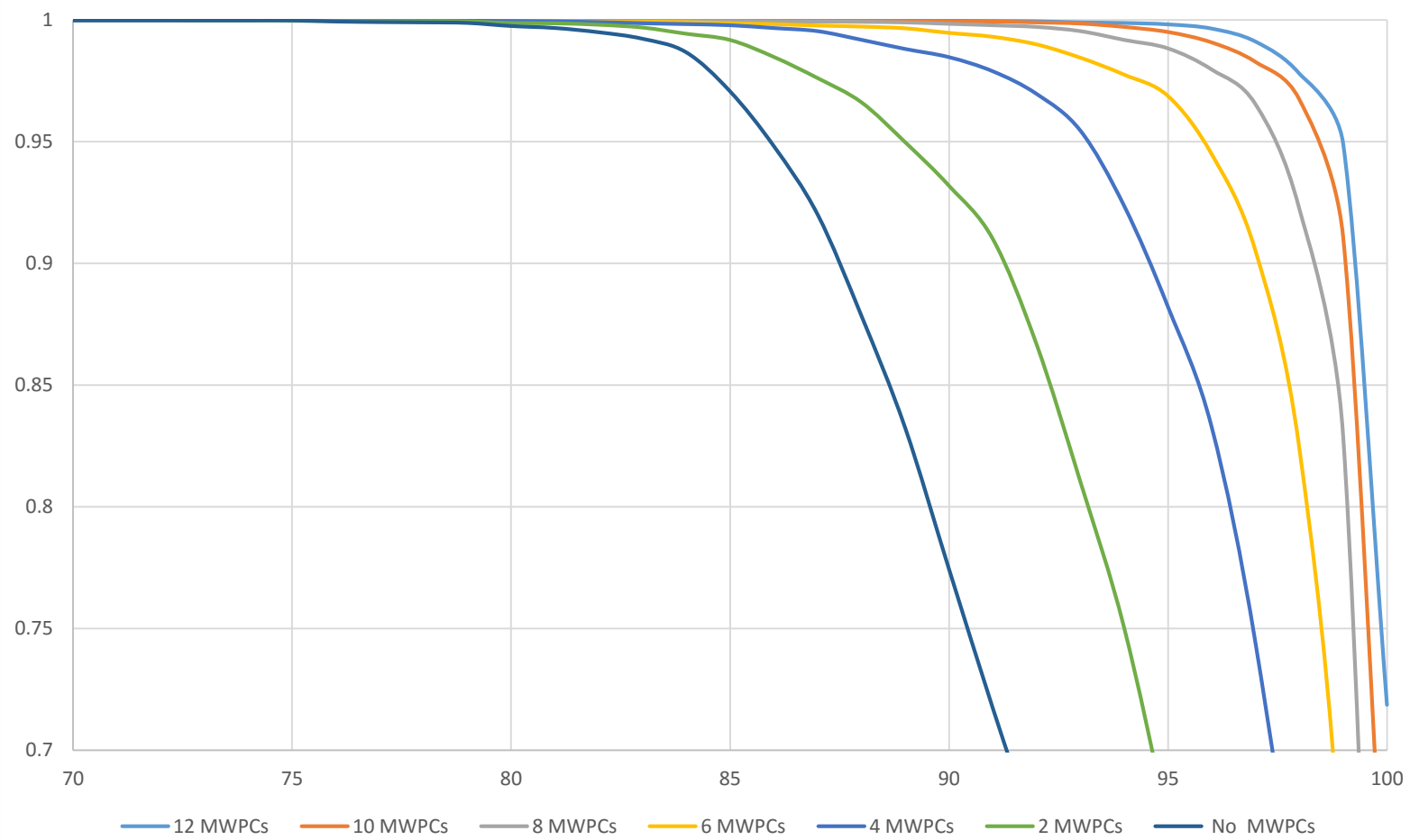
Signal Efficiency vs. Background Rejection, XY-20 cm Iron -XY



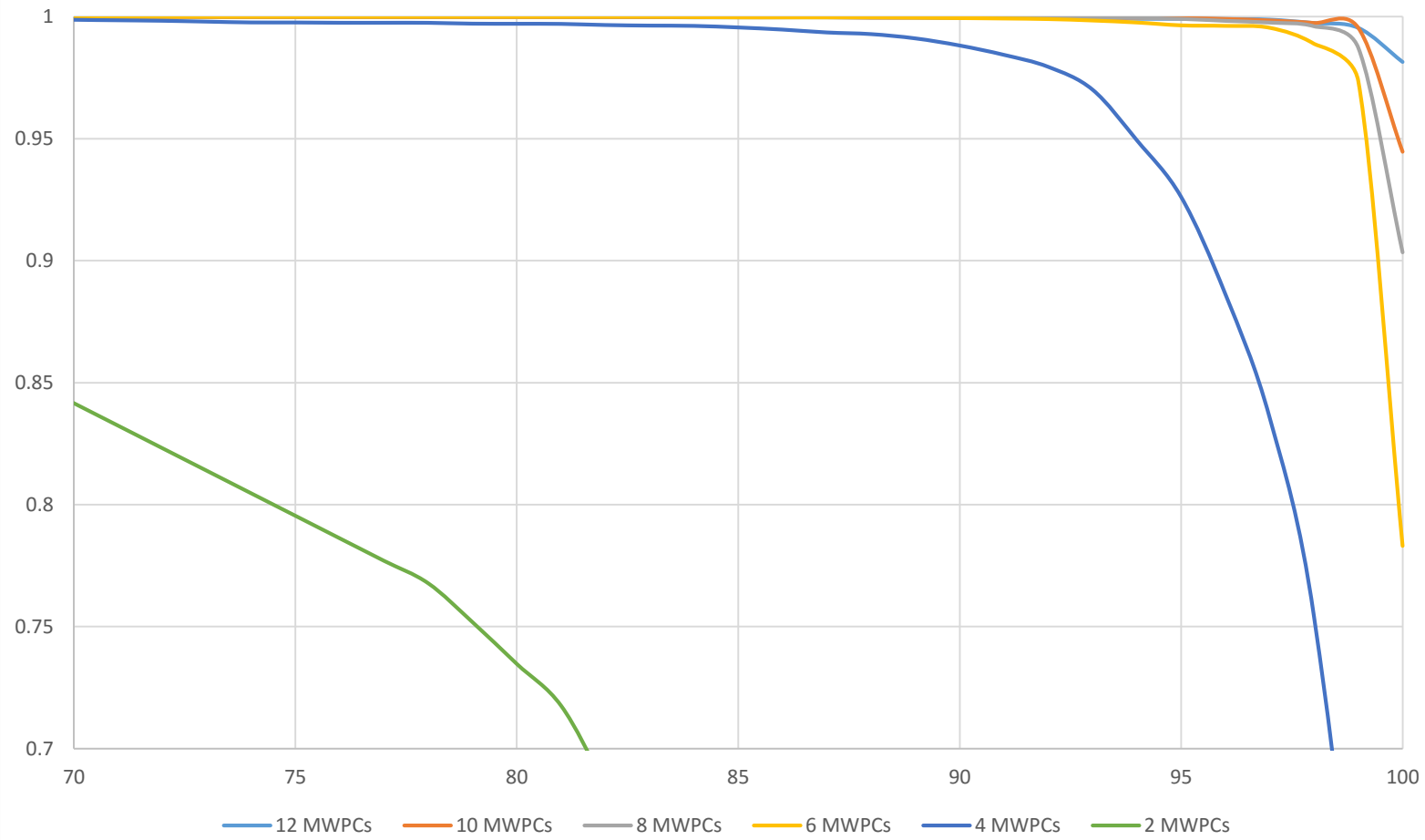
### Signal Efficiency vs. Background Rejection, X-10 cm Iron -Y



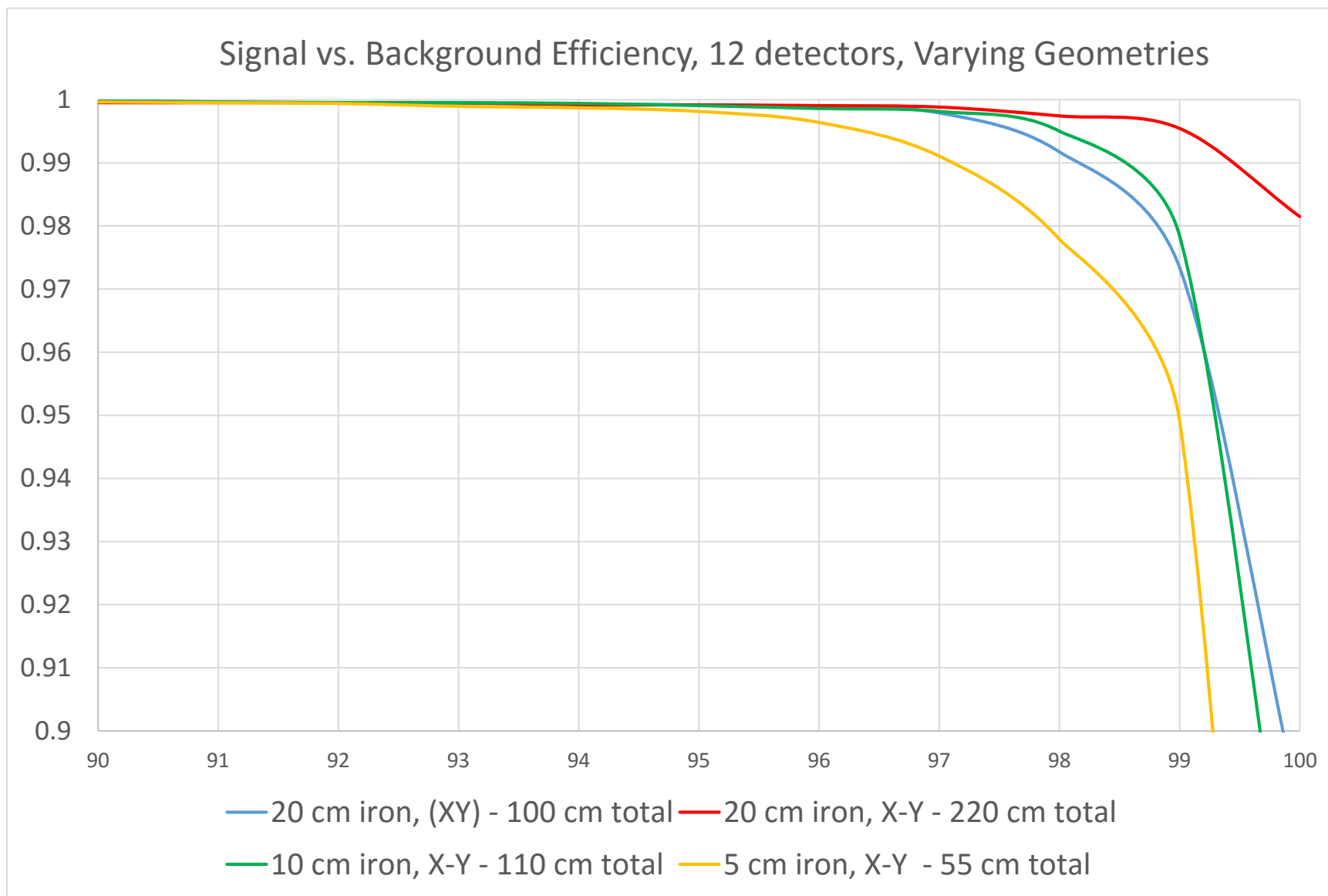
Signal Efficiency vs. Background Rejection, X-5 cm Iron -Y



Signal Efficiency vs. Background Rejection, X-20 cm Iron -Y

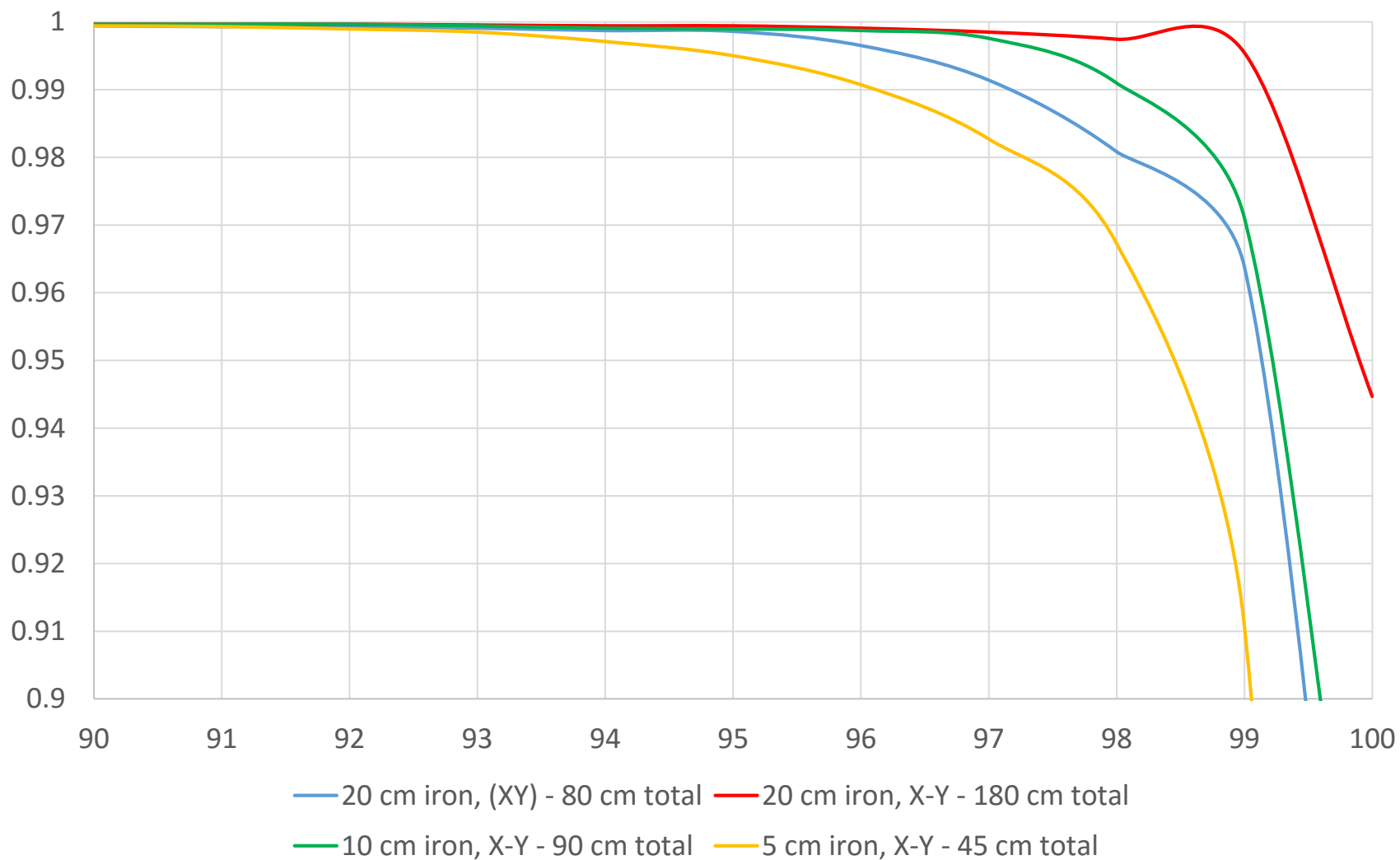


Look at simulations with the same number of MWPCs, but different amounts of iron

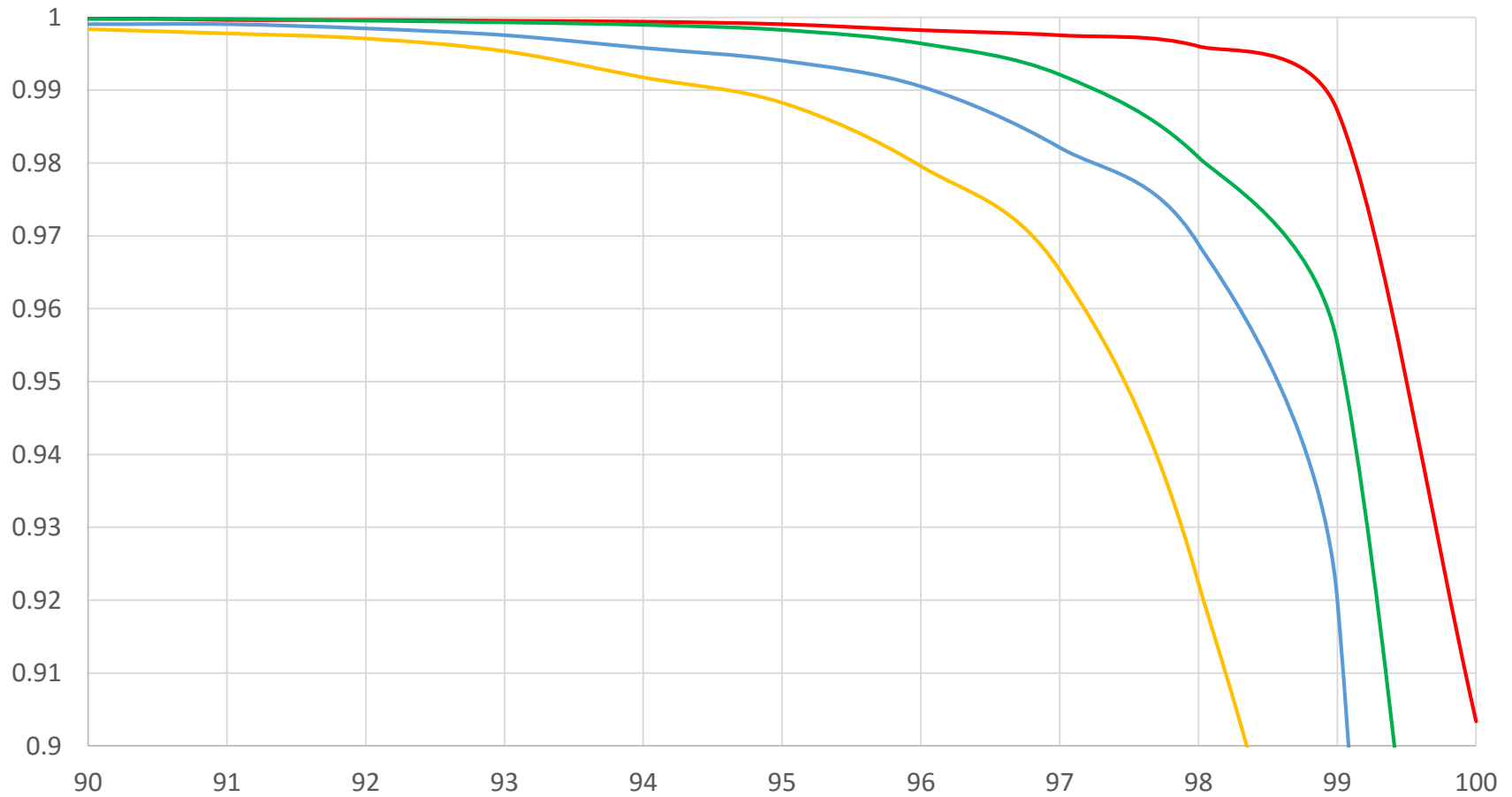




Signal vs. Background Efficiency, 10 detectors, Varying Geometries

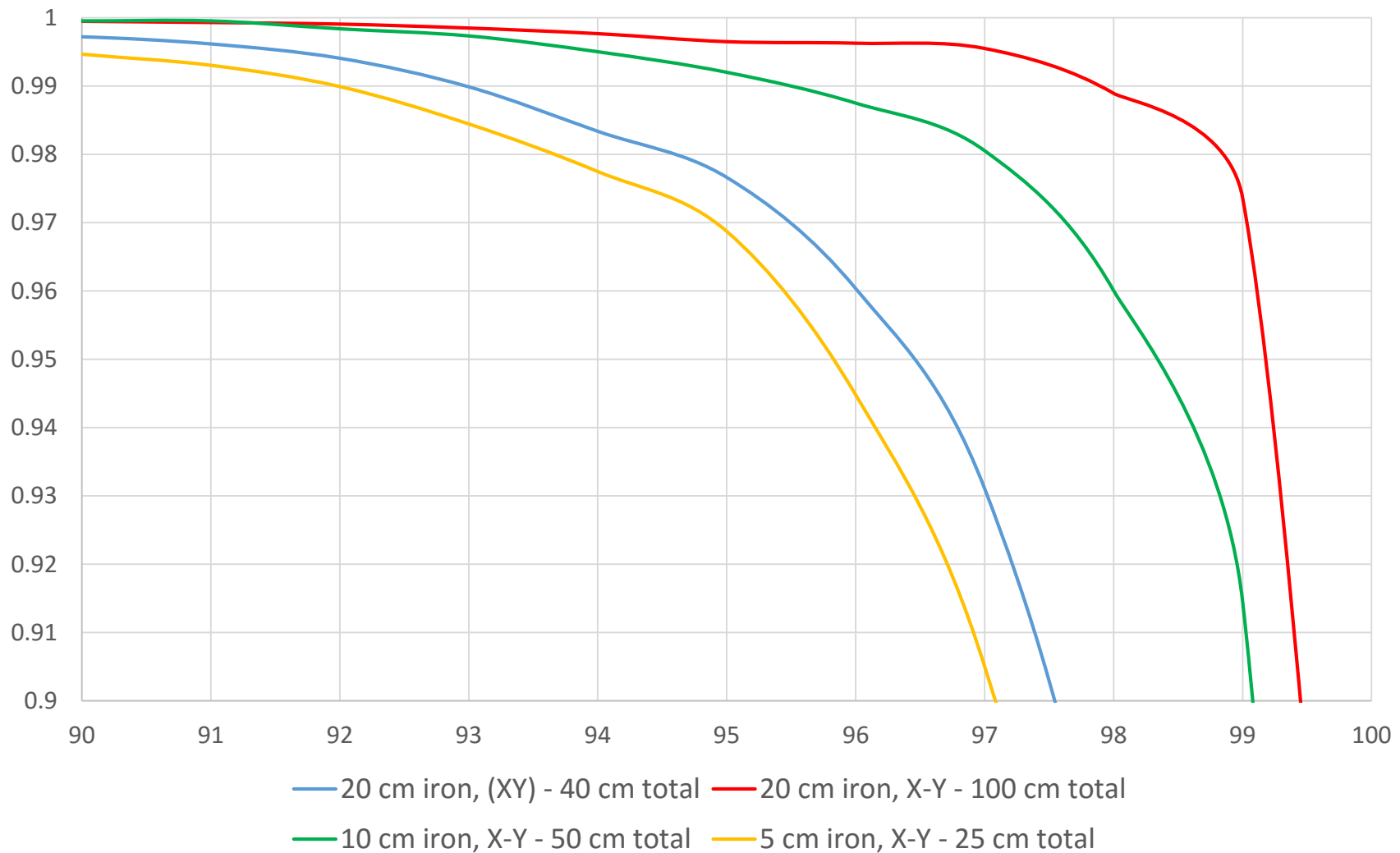


Signal vs. Background Efficiency, 8 detectors, Varying Geometries

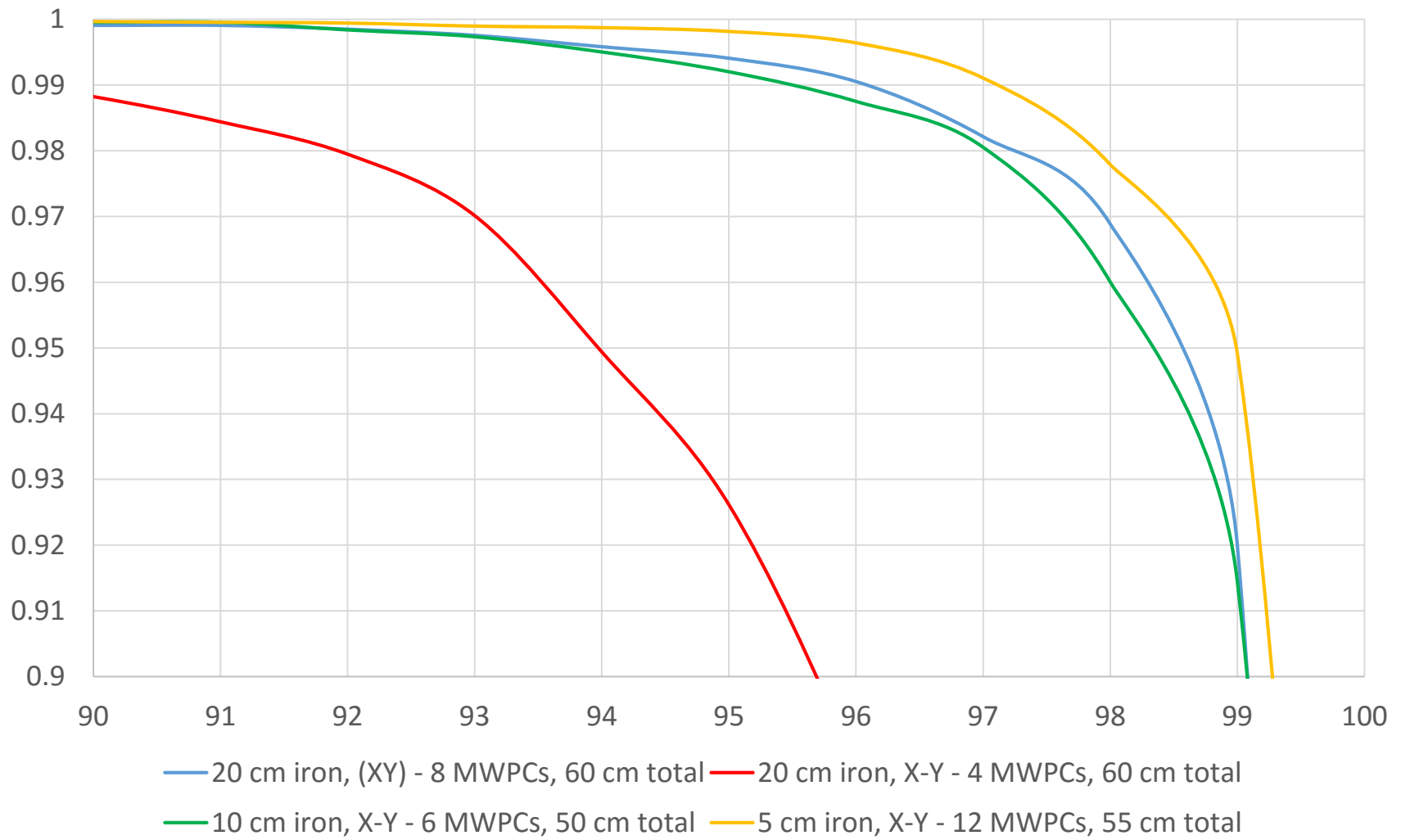


— 20 cm iron, (XY) - 60 cm total    — 20 cm iron, X-Y - 140 cm total  
— 10 cm iron, X-Y - 70 cm total    — 5 cm iron, X-Y - 35 cm total

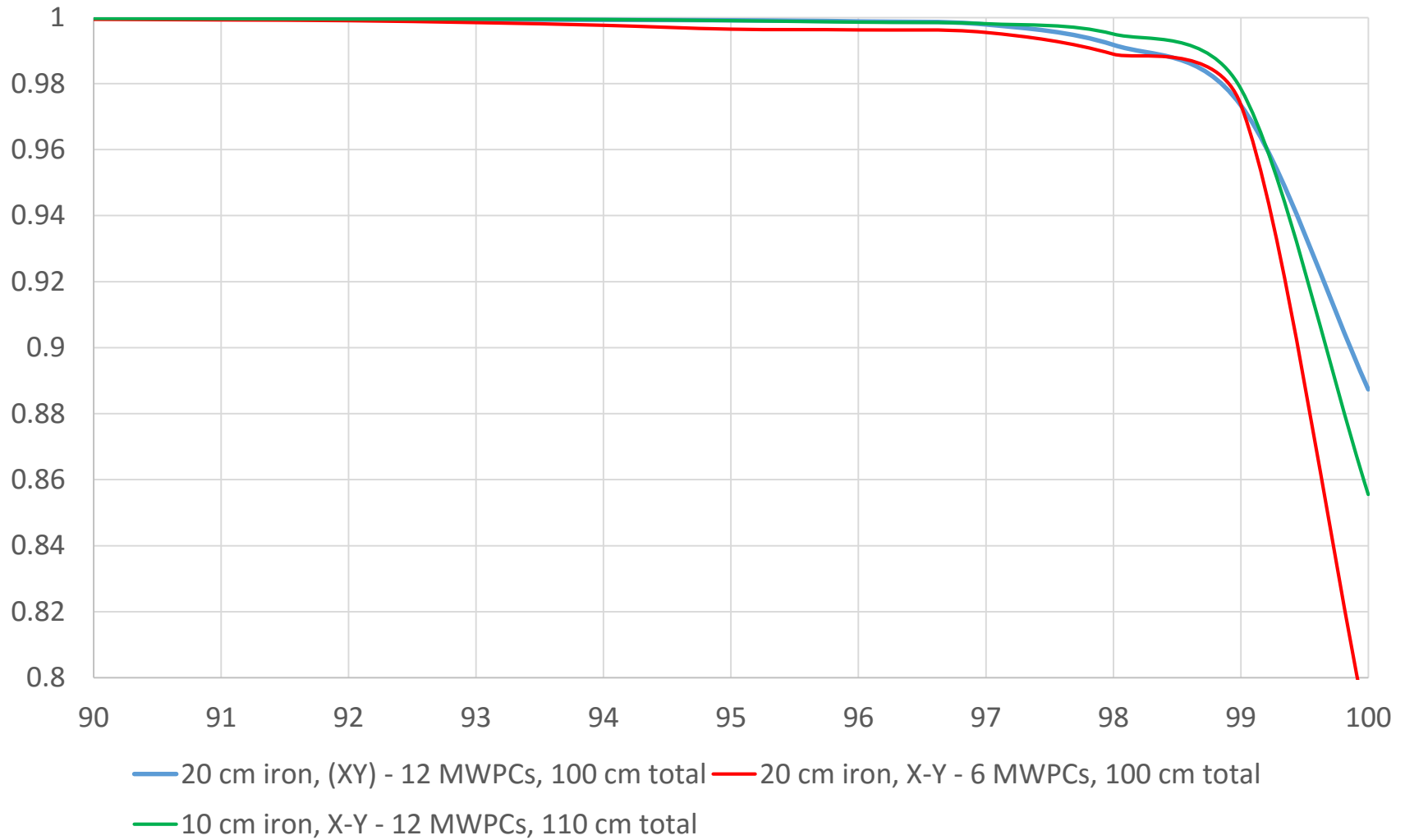
Signal vs. Background Efficiency, 6 detectors, Varying Geometries

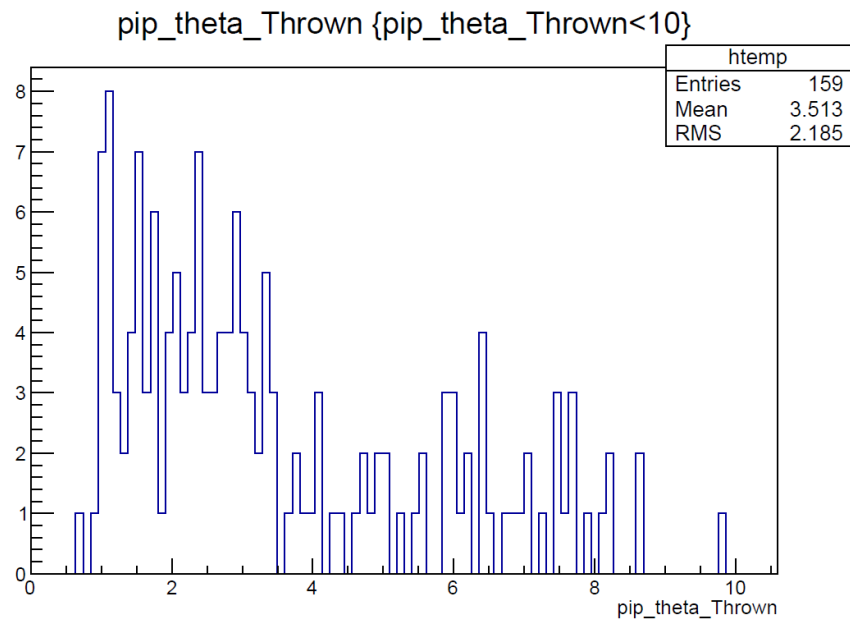


Near Constant Amount of Iron ~55 cm, Varying # of MWPCs



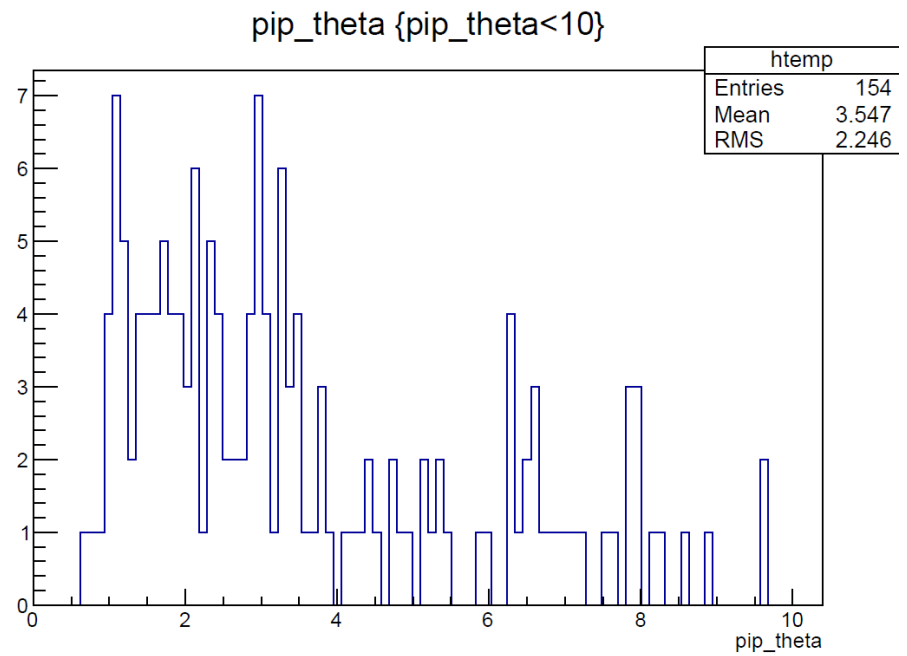
Near Constant Amount of Iron ~100 cm, Varying # of MWPCs



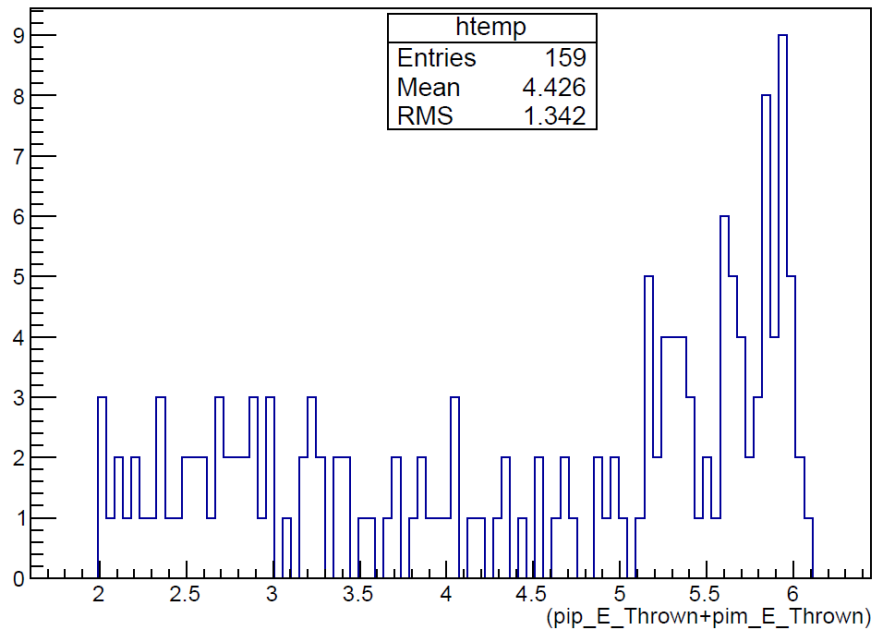


Above: PiPlus angle (thrown)

Below: PiPlus angle (reconstructed)



(pip\_E\_Thrown+pim\_E\_Thrown)



Above: Energy sum of events  
(thrown)

Below: Energy sum of events  
(Reconstructed)

(pip\_E+pim\_E) {(pip\_E+pim\_E)<10}

