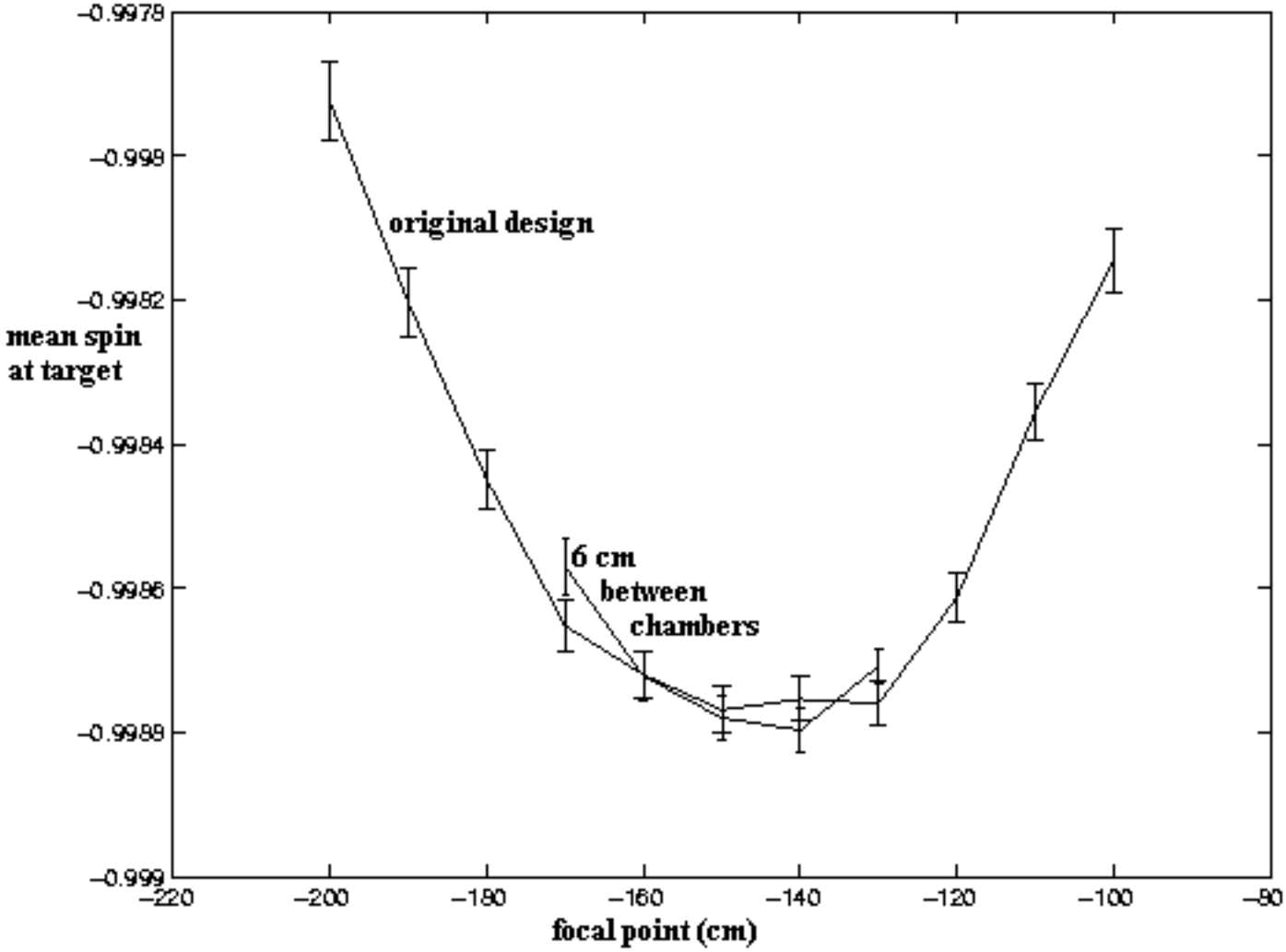

Figure 15: a comparison of the polarization at the target versus the focal point for the original design of the muon detector (see Figure 3), and for a detector with only six centimeters between chambers. This plot was motivated by the fact that E614 has spacers of six centimeters readily available. Two thousand events were run at each focal position to gain the data; chi-squared cuts were applied on each run to eliminate bad fits. Error bars shown are from the RMS values for each data point divided by the square root of the number of events contributing to the point. The two curves are similar; therefore, fitting helices based on hit information from either design will yield similar results with respect to polarization.