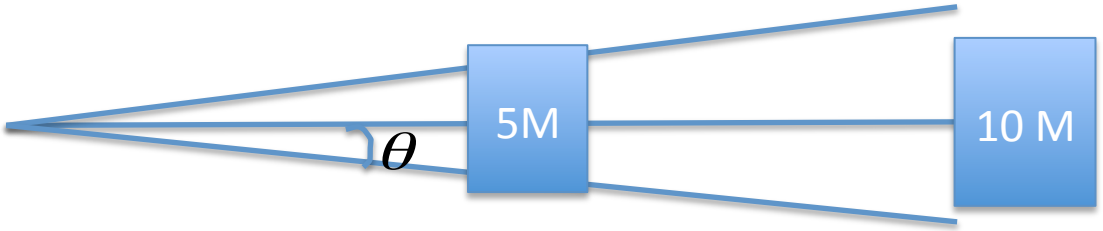
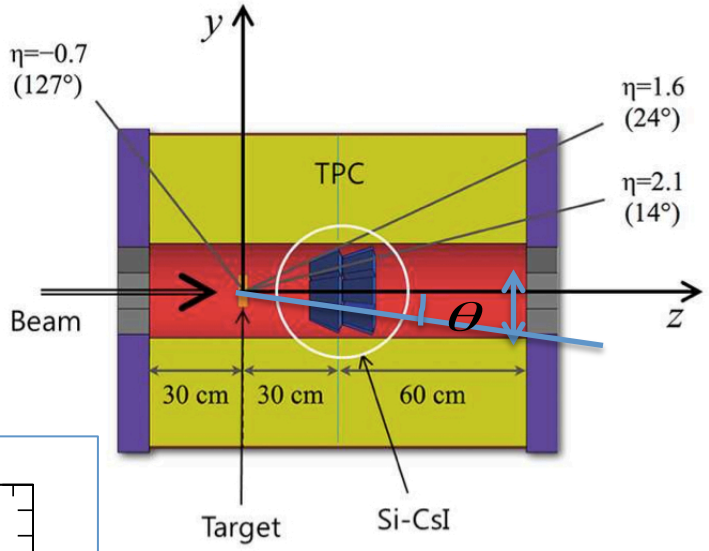
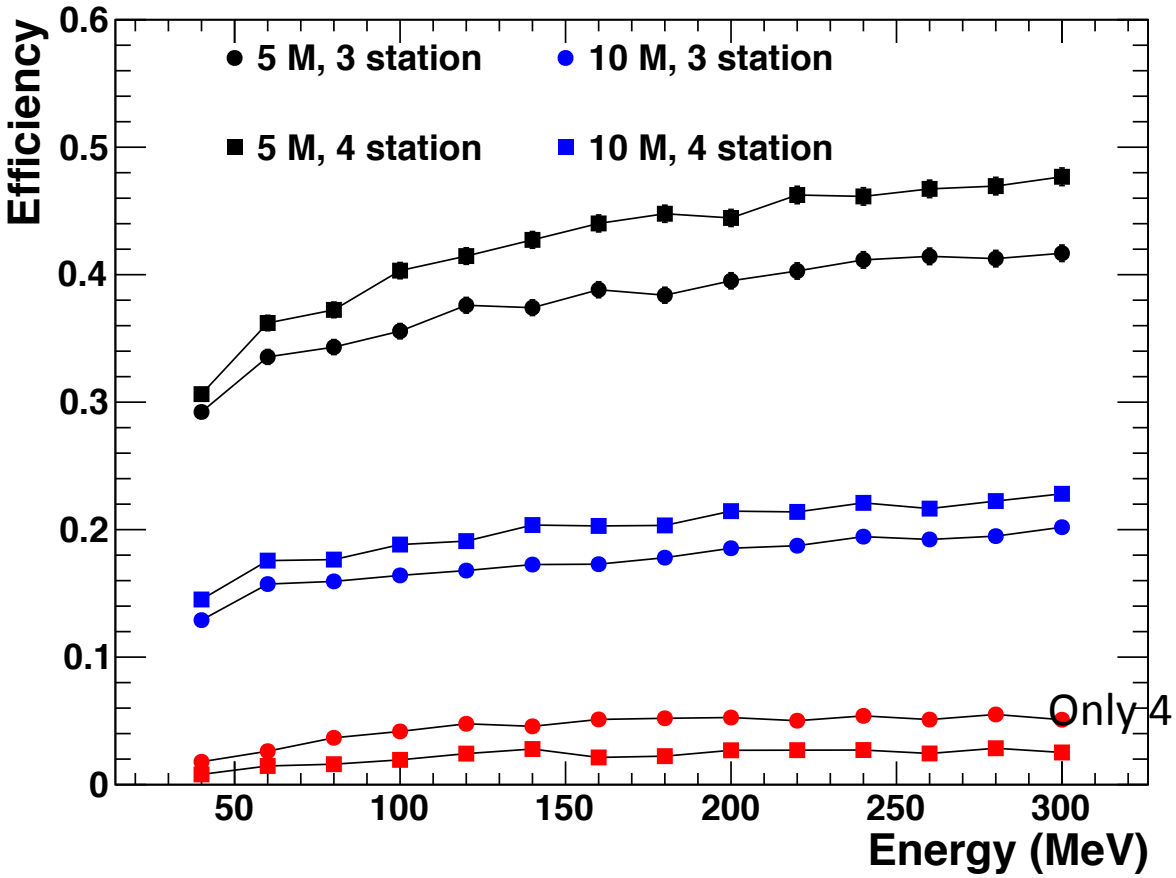
3 station detector is OK?





Single neutron efficiency



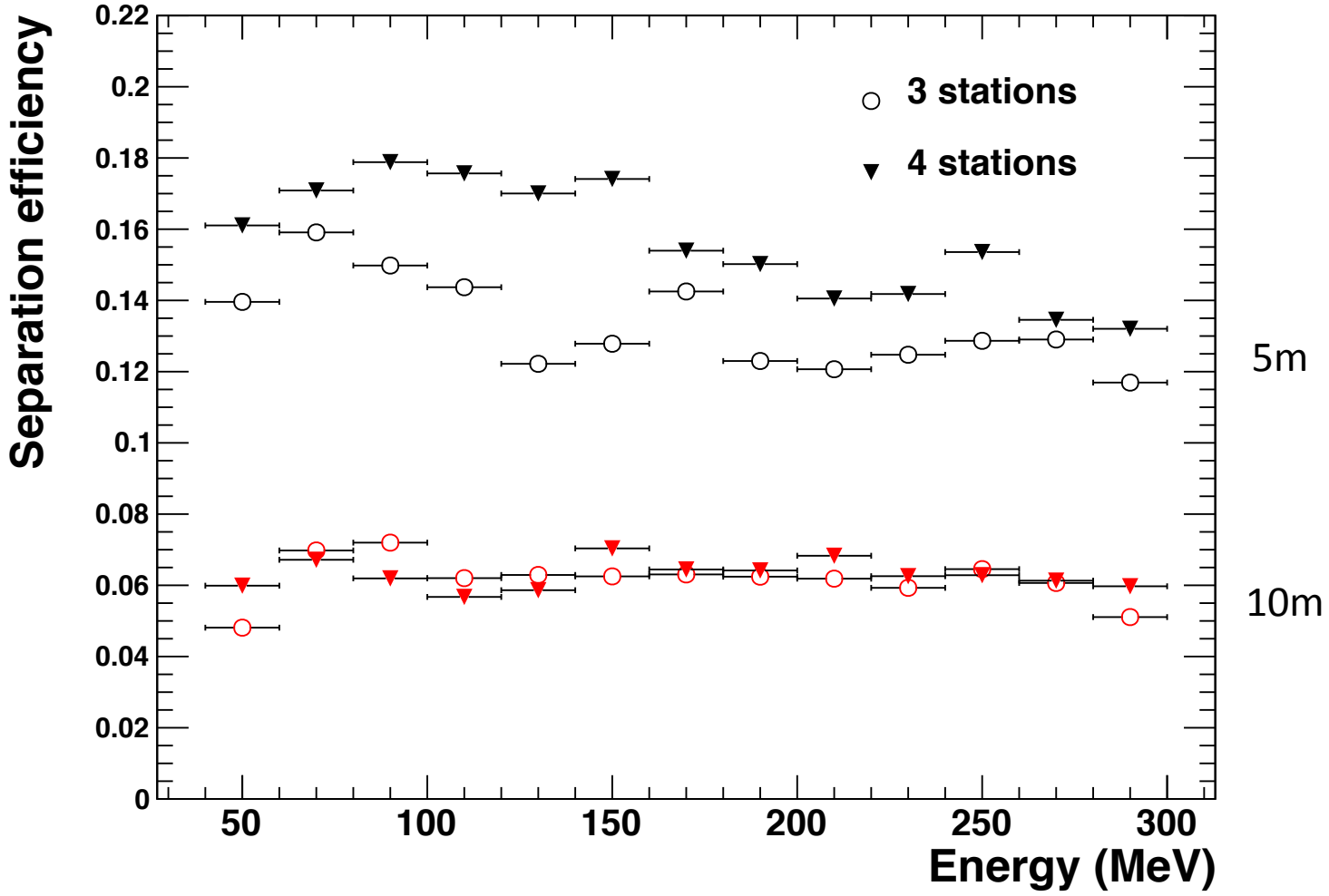
$$\theta = \tan^{-1}(0.15) = 8.53^{\circ}$$

$$d = \frac{1m}{\tan 8.53^{\circ}} - 1m = 5.6m$$

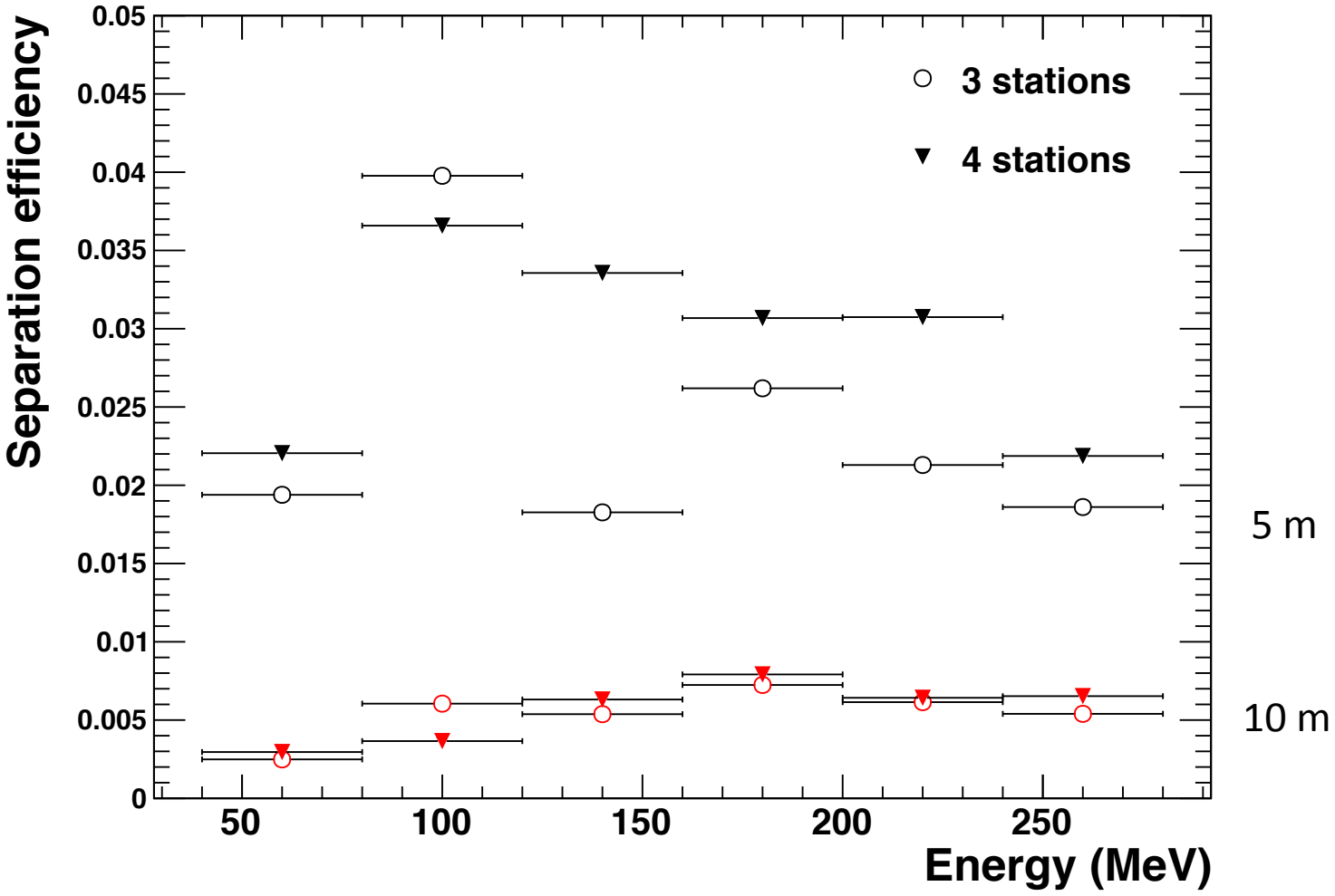
Only 4 station is fired

2 neutron generation (250000 events)
5m, 10m distance from target

Separation efficiency = # of correctly separated events/(number of events – no remained signal e



3 neutron


Separation efficiency
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
50
100
150
200
250
Energy (MeV)
3 stations
4 stations
5 m
10 m