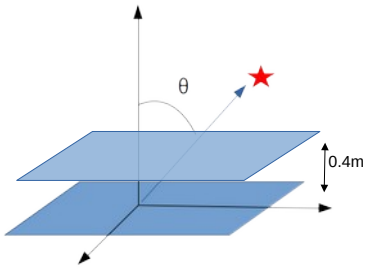
Assume a particle detector made by two planes (area $1m^2$) placed one on top the other at a distance of 0.4m, sensitive to particles that go thought both planes, with an efficiency that can be parametrized as :

$$\epsilon(\log_{10} E) = 1 - \frac{1}{e^{\frac{(\log_{10} E - 2)}{0.2}} + 1}$$

in the energy range $2<\log_{10}E<6$ MeV.




Compute (by means of a simple simulation) the effective area of the detector as a function of energy for a point source observed at an angle of $\theta = 60^o$ with respect to the vertical axis of the detector, and for another source observed at $\theta = 25^o$.