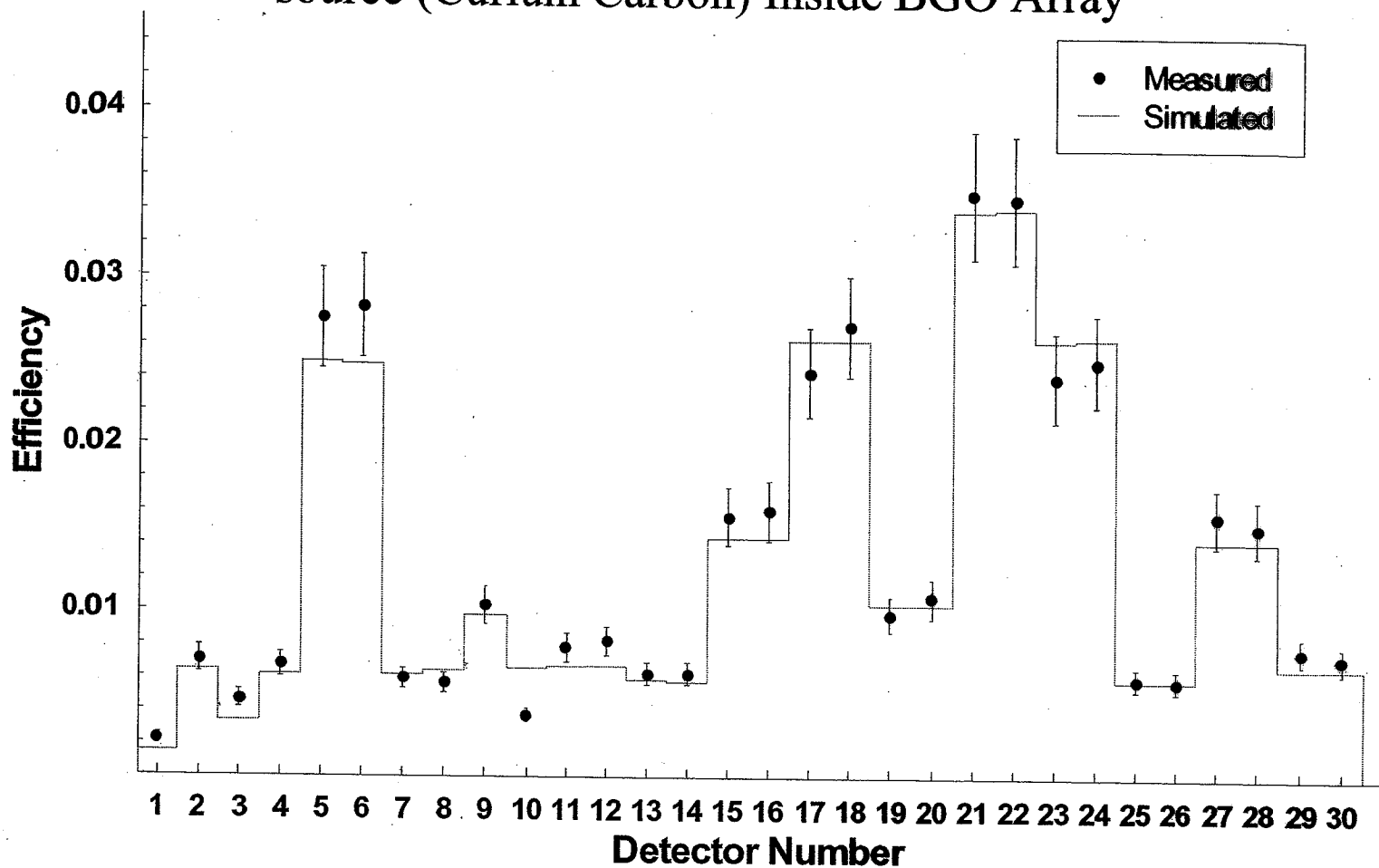# Efficiency of Simulation Vs. Efficiency of Measurement for 6.13 MeV source (Curium Carbon) Inside BGO Array
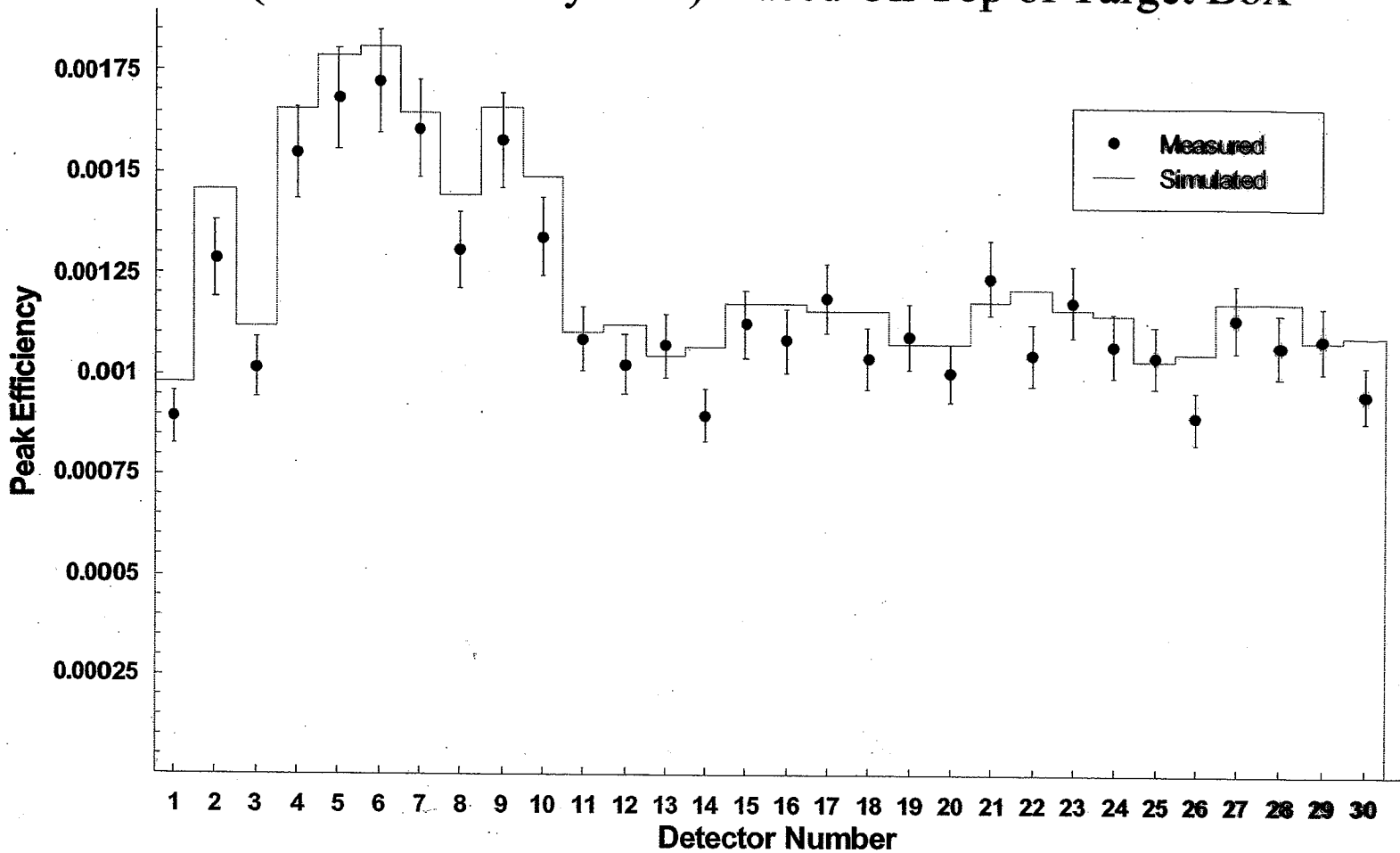

- Measured data points here refer to the Monte Carlo Fit of a GEANT simulation to actual data to produce a normalization factor. One can then calculate the area under the data by scaling the area under the reference GEANT simulation by this normalization factor.

Efficiency is measured by the formula

$$\epsilon = \frac{A}{N\, t\, \tau}$$

- The only error included on this plot is the error on the counting rate N which is ~10% for the Curium Carbon sample

Efficiency of Simulation Vs. Efficiency of Measurement for 4.44 MeV source (Americium Beryllium) Placed On Top of Target Box

- Measured data points here refer to the Monte Carlo Fit of a GEANT simulation to actual data to produce a normalization factor. One can then calculate the area under the data by scaling the area under the reference GEANT simulation by this normalization factor.
- The only error included on this plot is the error on the counting rate N which is ~7.5% for the Americium Beryllium sample