

3 Experiments: All mentioned for GM and GRS & then accordingly per class and time

Geiger Muller (GM)

1. GM Characteristic Curve and determining the operating voltage and slope of the plateau (**GM Manual experiment #1**)
2. Nuclear counting statistics with GM counter (Poisson and Gaussian distribution) (**GM Manual experiment #3**)
3. Estimating Dead time of GM Counter using two source method (**References part**)
4. Inverse square law and (**GM Manual experiment #2**)
5. Efficiency of GM detectors (**GM Manual experiment #4**)

Gamma Ray Spectroscopy (GRS)

1. Reading and characterising GRS: Integral rate vs HV
2. Best resolution and GRS Operating voltage (**GRS Manual experiment #5.1**)
3. GRS calibration using 3 sources (**GRS Manual experiment #5.2 to #5.7**)

Others

1. **Monte Carlo:** Random numbers (Counting statistics, fitting, filtering, etc.)
2. **Bubble Chamber:** Proton anti-proton low energy interaction cross-section using Bubble Chamber images by analysing pions prong (**refer to Referene #3 of \$2**)