

PY 482: Homework 2 : Due February 7th

- Using the root ntuple `experiments.root` and our analysis macro `Analyze.C` make a two dimensional plot of energy loss versus vz .
- Using the same - make a 1D plot showing the average energy loss in bins of vz . Choose the binning such that the statistical error on the energy loss is roughly equal in bins of vz . Hint root by default takes the statistical uncertainty to be the square root of the number of entries.
- Fit a Gaussian distribution to the e-beam distribution. Report the mean, width, and amplitude of the resulting fit
- Chose a few functional forms to the resulting 1D histogram you made for question number 2. Which form fits best?