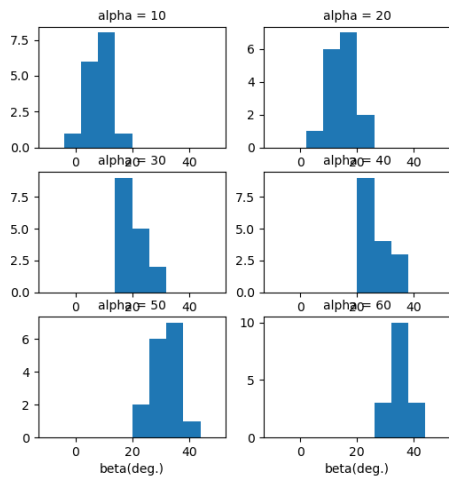


The analysis of the data is done using Snell's law which is: $n_1 \sin(\alpha) = n_2 \sin(\beta)$. Using data collected measuring by shooting a laser through the glass at angles 10, 20, 30, 40, 50, and 60, the angle of the resultant light is measured (6 times per angle). The first section organizes the data collected into histograms for each angle (α).



The second section calculates α , $\sin(\alpha)$, mean of β , $\sin(\beta)$, and the uncertainty of $\sin(\beta)$ that are then displayed in a neat, comprehensive table.

The third section is where $\sin(\alpha)$ vs $\sin(\beta)$ is plotted along with error bars indicating the uncertainty. The code is meant to χ^2 of the plot using the formula for Snell's Law, calculated for $\sin(\beta)$ where the best fit is applied to the plot and calculates the p-value.

The last section finds the where χ^2 is for the index of refraction and plotted, searching for the minimum χ^2 that indicates the best fit.

