

Appendix

Subhadip Baidya, 221092

November 2024

Codes and their Functions

Below is a description of each code file and its functionality:

- `model1.py`:
 - Calculates the Least Squares Error (LSE) using the Gauss-Newton method for Model 1.
 - Computes the error for Model 1.
 - Plots the residuals and the fitted curve for Model 1.
 - Calculates the confidence intervals of parameters for Model 1.
- `model2.py`:
 - Calculates the Least Squares Error (LSE) for Model 2 using the Gauss-Newton method.
 - Computes the error for Model 2.
 - Plots the residuals and the fitted curve for Model 2.
 - Calculates the confidence intervals of parameters for Model 2.
- `model3.py`:
 - Calculates the Least Squares Error (LSE) using the Gauss-Newton method for Model 3.
 - Computes the error for Model 3.
 - Plots the residuals and the fitted curve for Model 3.
 - Calculates the confidence intervals of parameters for Model 3.