

1. Statistical Distributions

- 1.1. Random numbers
- 1.2. Expectation Values
- 1.3. Probability Distribution Functions
- 1.4. Common Statistical Distributions (Discrete & Continuous)
- 1.5. Moments of a Distribution
- 1.6. Parameter Estimation
- 1.7. Hypothesis Testing (very briefly)

2. Introduction to Errors and Error Analysis

- 2.1. Types of Errors (Precision/Accuracy)
- 2.2. Sources of Errors (Reading/Random/Systematic and Role of instrument Calibration)
- 2.3. Propagation of errors
- 2.4. Quoting Errors (Relative/absolute/significant figures/common misconceptions)