

Random Samples $X \sim D$ $RS = \{X_1, \dots, X_n\}$. iid.
Properties of .
Statistics of R.S. (x_1, \dots, x_n) - realization

Sample mean - $\frac{1}{n} \sum_i X_i = \bar{X}$ $T(X_1, \dots, X_n) \rightarrow \mathbb{R}$
Sample variance $E[\bar{X}] = \mu$
 $Var[\bar{X}] = \frac{\sigma^2}{n}$

Plots.

Chi-sq.

Statistical Plots

(See example code “StatPlots.r”)

- Histograms
- Empirical CDF
- Box plots
- Scatter plots