1 0905

Cumulative distribution function (CDF): for a random variable X, its CDF is given by $F_X(x) = P(X \leq x)$

Normal Q-Q plot: quick evidence to support claims like "these samples are from a normal distribution". Note that this is only evidence, not proof.

2 0910

Kolmogorov-Smirnov test: to test whether a sample is from a given reference distribution. The test statistics is the max discrepancy between the empirical CDF and the theoretical CDF of the reference distribution.

Lilliefors' test: a normality test based on the Kolmogorov-Smirnov test

Anderson-Darling test: also to test whether a sample is from a given reference distribution.

De'Moivre-Laplace Thoerem: Certain Binomial distribution can be approximated by normal distribution with the same mean and variance. This is the motivation for Wald's confidence interval.

3 0912

Wald CI: CI for proportions where MOE (2-sided with $100(1-\alpha)\%$ confidence) is given by $Z_{\alpha/2}\sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$. It requires $\hat{p}$ to be far enough away from 0 or 1 when n is not big enough. Otherwise, it gives values that are less than 0 or greater than 1.
Wilson CI: addresses the mentioned shortcomings of the Wald CI.

4 0917

Pairwise tests: to test the equality of more than 2 statistics. Be aware how the probability of having type I error gets compounded.

5 0919

Chi-Square test(variance): to test if the variance of a sample is equal to a claimed variance

F test: to test the equality of variance for two samples

Bartlett's test: to test the equality of variance for multiple samples