# Notes on Testing Statistical Hypotheses by Lehmann and Romano

compiled by D.Gueorguiev, 4/30/24

## Statistical Inference and Statistical Decisions

Each statistical observation has a set of observations. The values in this set are the values taken by a random variable whose distribution is at least partly unknown. The parameter represents a label of the distribution which can uniquely identify the latter, but the parameter value is unknown; it is known only that lies in a certain set which will be denoted as *parameter space*. Generally, *Statistical inference* is concerned with the methods of using the given observation data to obtain additional information about the distribution of X or the parameter with which it is labeled.

## References

[Testing Statistical Hypotheses, E.L. Lehmann, J.P. Romano, Third Edition, Stanford U., Springer, 2005](https://github.com/dimitarpg13/generalized_synthetic_control_for_testops/blob/main/articles/hypothesis_testing/Lehmann_and_Romano-TestingStatisticalHypotheses.pdf)