LEARNING OBJECTIVES - Lecture 13 (Hypothesis Testing)

After attending lecture and completing the associated readings, you should be able to:

1. Construct the basic setup of the hypothesis testing problem, e.g. in terms of error exponents.
2. State and prove the Neyman-Pearson lemma.
3. Think geometrically using relative entropy as a geodesic in the probability simplex.
4. Characterize and use the relative entropy-typical set.
5. State and prove the Chernoff-Stein lemma.