

Advanced Statistics. (E. Di Bernardino).

This course focuses on three pillars of modern statistical inference: parameter estimation, hypothesis testing, and model selection. Its aim is to provide a good understanding of the current methods via a thorough treatment of the existing theoretical guarantees. A particular emphasis will be placed on the estimation, with a focus on the asymptotic setting. After revisiting the method of moments and maximum likelihood estimation, we will turn to U-statistics and look at some applications.