COURSE ANNOUNCEMENT

STATISTICS 425A, SPRING QUARTER 2006

Non-Parametric Statistics

Instructor: Ashley Steel
Meeting time: 12:30-1:50
Meeting place: Physics/Astronomy Auditorium A114

Simpler, less computationally demanding, more intuitive, more powerful in many cases, non-parametric statistics are essential analytical tools. We’ll cover the basics: sign test, chi-squared goodness-of-fit test, rank-based tests, and the Kolmogorov goodness-of-fit test among others. And, we will explore randomization tests, their assumptions and all their neat and useful applications. These tools will be learned in the context of real data analysis. We will analyze data on ourselves, from our own mini-projects, published data from peer-reviewed journals, and consulting examples. In these examples, we will emphasize the essential yet often under-emphasized aspects of statistical analysis: refining the research question, identifying assumptions, selecting the best test, and communicating statistical information. No specialized statistical theory required. Probability theory will help in understanding the material but is not a prerequisite.