

# Probability and Statistics for High Energy Physics III

*Saturday, 7 November 2009 11:30 (1:00)*

## Abstract content

### Summary

Notions of probability and statistics are of fundamental importance not only for those physicists who want to work in experimental physics, but also for those who want to perform comparison of models and/or theory with experimental results. In this course we will revise the general properties of probability distributions as well as some probability distributions which most frequently appear in physics, including sampling distributions like the  $\chi^2$  one, which are important to decide about the quality of theoretical models fits to experimental data. We will also discuss error propagation and methods to compare theory with experimental results, including parameter estimators, Maximum Likelihood and Least Squares.

**Primary author(s) :** Dr. MAGNIN, Javier (Brazilian Center for Research in Physics)

**Presenter(s) :** Dr. MAGNIN, Javier (Brazilian Center for Research in Physics)

**Session Classification :** Minicourses session III