

Statistics course

Physics @ LHC
LIP – 02/04/2012

- Experimental error
- Distribution & Probability / Sample of events
- Important distributions – Central Theorem
- Multi-variable distributions & error propagation
- Hypothesis testing – Maximum Likelihood

Pedrame Bargassa

Disclaimers:

- 90 minutes: Too short to give a full-fledge course on statistics
- → This is a pragmatic introduction
- The material for “a given” full course is actually present: Based on syllabus of Pr. T. Nakada @ ETHZ:
 - Will be going through, insisting on important notions
 - Bringing examples in HEP
 - You're welcome to:
 - Take the time to go through the full course
 - Do the calculations
- Exercises will be provided & added at the end of this course