Wk2 Day 1 Comments

- Today :
  - BAO+MS-DESI lecture

- Data Analysis Project
  - Do you have a clear direction?
    - Tell someone else about exactly what you are going to do - this will make it more clear. Ask questions of your TA if you have one.
  - Data - We need to download large statistical sample of data! Go over simple_swift_analysis_links for how to get started

- Rest of Week
  - IBBOSS fiber testing lecture
  - Visit to fiber lab, mini-project (for those of you in internship course)
  - DATA and MORE DATA!!!

Aside for Statistics

- Very useful for you all to become comfortable with statistics - at least Gaussian stats!!!

- Intgl over -inf,+inf [a exp(- $(x-b)^2 / (2c^2)$)]
  $$= a c 2 pi$$

  – If you want integrated probability =1, then use:

  $f(x)=$ $1/ (\sigma sqrt(2 pi)) exp(- (x-x_0)^2 / (2 \sigma^2))$

- If your instructor does not have a demo:
  http://www.calculator.net/probability-calculator.html

- Off the top of your head, you should know:
  how many sigma <=> 68% probability?
  how many sigma <=> 90% probability?
  how many sigma <=> 95% probability?

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    - *What assumption goes into above?*
  - Just count number of S/N > 5 for A/A_{BAT} = 1/25, 1/10, 1/5, etc.

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- Second, divide and conquer; only 33/person.
- Third, cross-check a few of your neighbor's analyses