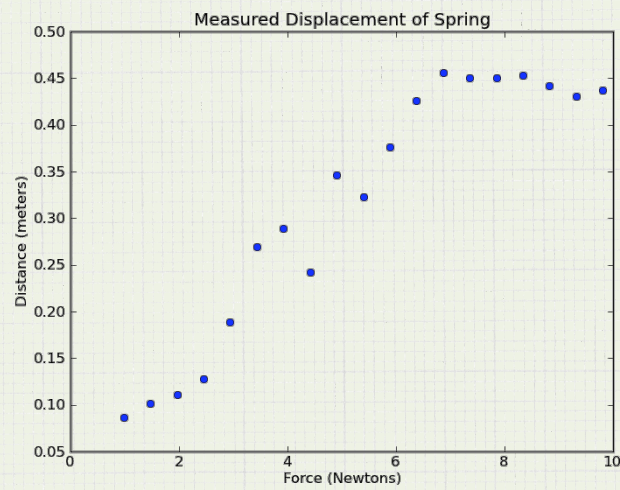


Hypothesis: linear relationship between F and x

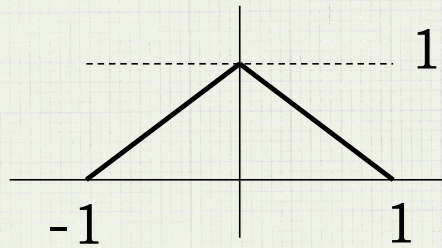


6.00x -- Understanding Experimental Data

$$\text{observation}_i = \text{prediction}_i \pm \text{error}$$

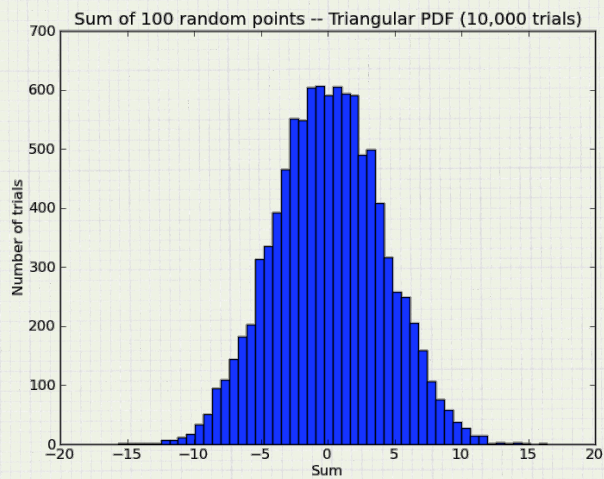
6.00x -- Understanding Experimental Data

Accumulation of many small random errors



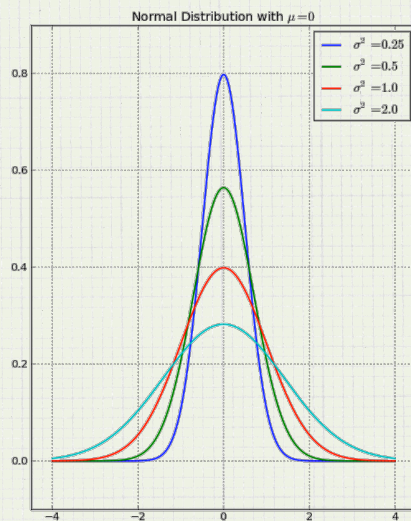
6.00x -- Understanding Experimental Data

Accumulation of many small random errors



6.00x -- Understanding Experimental Data

The Normal distribution



6.00x -- Understanding Experimental Data

Gaussian model for observed errors

So when observation errors are due to the accumulation of many small random perturbations:

6.00x -- Understanding Experimental Data