Deck 10

1. Measure resistivity of MIlliQ
2. Prepare slides
3. Extract data
4. Start intro and methods

* Deviation from frequentist model
* Bayesian statistics
  + We know data exists and they are not random
  + The model is a random variable that we will estimate from our fixed data
  + Focus is on estimating the distributions of possible model parameter values from the data
  + Probability/distributions
    - Pr(Y): the probability or likelihood of our observed data
    - Pr(φm) : the probability distribution of our model and parameters before data are observed
    - Pr(Y|φm)
    - Pr(φm|Y)
      * This is what we are inferring
  + Conditional Probability
    - Sample space
      * Space where everything occurs
      * Total area is 1, Pr(S) = 1
      * An event is a subset of the total area
        + Pr(A) = (Area of A)/(Area of S) = Area of A
      * Another event would be a second subset
      * If comparing the events, we compare the probability of each within the sample space, with the understanding that they are not independent but not the exact same event
        + You can subset the events where the overlap to understand their probabilities
        + Pr(B|A) = this is the probability of B given A