

DATA
STOCHASTIC MODEL } $\rightarrow$ PREDICTIONS
ADAPTING THE MODEL TO DATA: INFERENCE

FREQUENTIST PARADIGM

- STOCHASTIC MODEL CONTAINING y_{data} , y_{pred} , AND UNKNOWN PARAMETER θ
- USE DATA TO FIND $\hat{\theta}$ (ESTIMATE)
- PLUG IN $\hat{\theta}$ IN MODEL TO MAKE PREDICTIONS

BAYESIAN PARADIGM

- STOCHASTIC MODEL CONTAINING y_{data} , y_{pred} AND UNCERTAIN VARIABLE θ
- USE CONDITIONAL MODEL FOR y_{pred} GIVEN y_{data} FOR PREDICTIONS