# CONFIDENCE-BOXES

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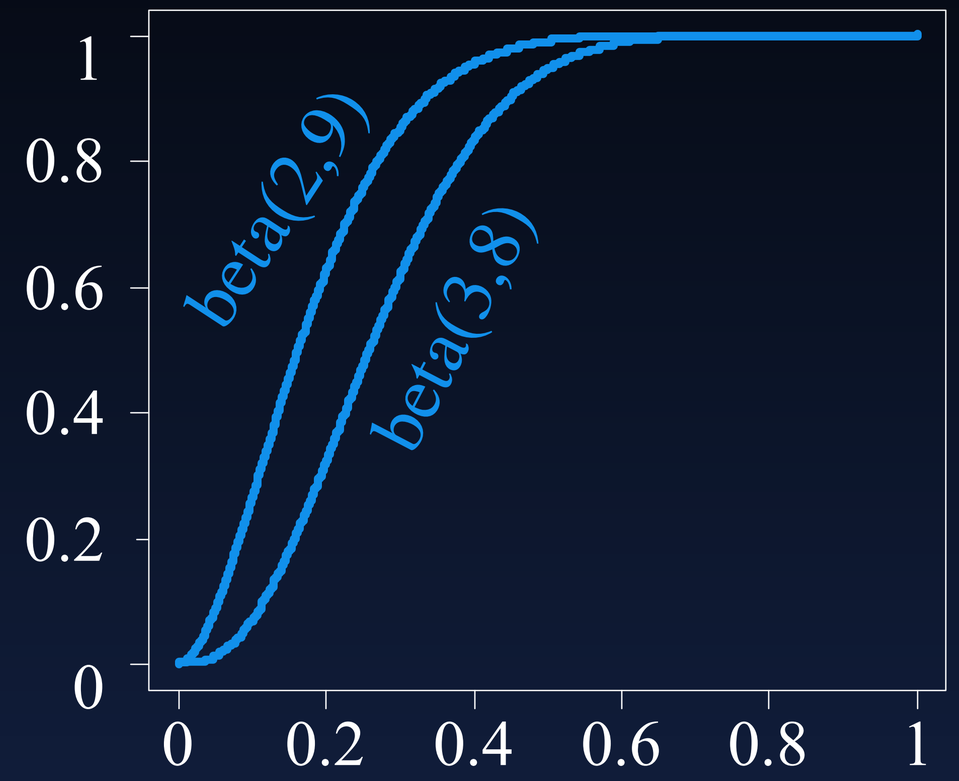
- Generalisation of confidence distributions
- Puts interval bounds on confidence distributions
- Reflect inferential uncertainty about parameter
- Known for many cases
  - Binomial rate and other discrete parameters
  - Normals, and many other problems
  - Non-parametric case
- Have confidence interpretation
- Can do maths with them

# EXAMPLE: BINOMIAL RATE *P* FOR *K* OF *N* TRIALS

$$p \sim \left[\text{beta}(k, n-k+1), \text{beta}(k+1, n-k)\right]$$

Data

K = 2 Successes

N = 10 Trials