## To Do List

## Gabe Harris

## December 21, 2021

- Read intros to listed texts (See Thesis section 2.1 Why Predictive Inference?) and summarize answers to that question in WhyPredictiveInference.Rnw
  - Nate Silver's book (1st chapter or intro)
  - Hoff's book
  - Geyser's book (1st chapter or intro)
  - Aitchison and Dunsmore (1st chapter or intro)
  - Dean's paper
  - maybe some googling
- Create example comparing predictive inference result with plug in parameter result

  Dean's suggestion: 1-sample binomial with small sample size. E.g. 3 successes,
  7 failures (Pr(success) < 0.5). Difference will be more pronounced with smaller sample sizes.
- (1) Combine rpredNormIG(), rpredNormIG2(), and rpredNormIGk() into one function
- Read up on convergence in probability and justification for MCMC (Hoff, Casella & Berger)
- Compare variance computations: var() function on MCMC sample vs direct computation from theory  $(EX^2 (EX)^2)$
- (2) General guidance: Read up on "How to write a thesis in Latex," for example https://www.overleaf.com/learn/latex/How\_to\_Write\_a\_Thesis\_in\_LaTeX\_(Part\_1)%3A\_Basic\_Structure
- (3) Figure formatting: save figures as .png files and insert? Or what? Need better control over how figure appears in resulting pdf.
- (0) Incorporate any guidance from Dean.