Buffalo First Analysis

Rachael Caelie (Rocky) Aikens

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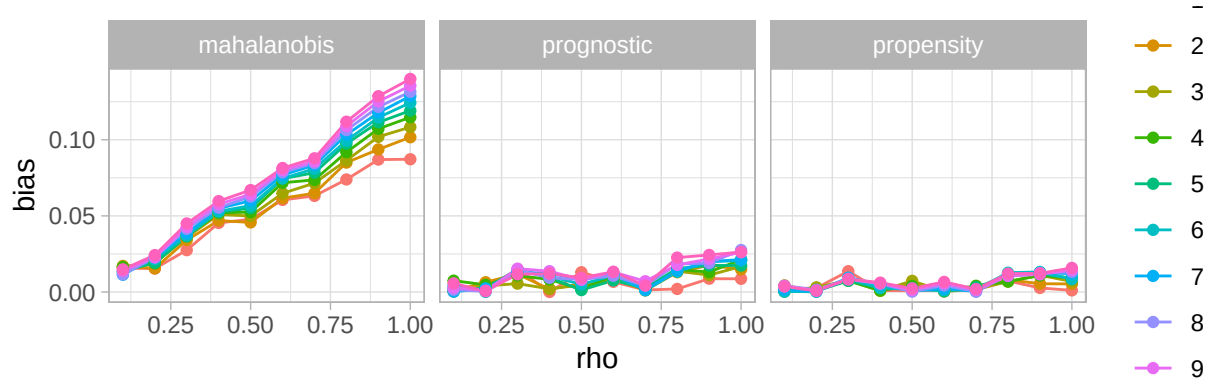
Upload Data

```
read_data <- function(i){
  filename <- paste("../data/nsim_1000/angle_sigma1_results_",i,"_10_1000", sep = "")
  dat <- read.csv(filename) %>%
    mutate(rho = i/10)
  return(dat)
}

dat <- lapply(1:10, read_data) %>% bind_rows
```

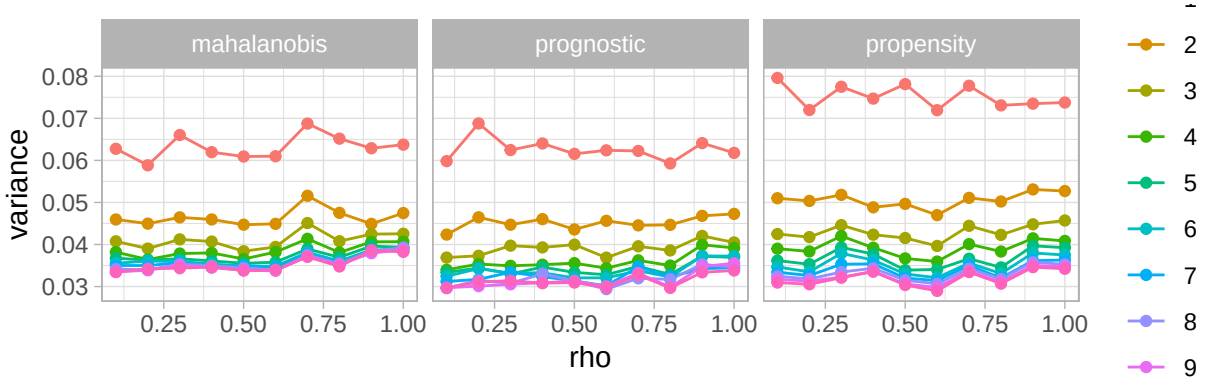
Performance Summary Plots

```
true_tau <- 1

dat <- mutate(dat,
              squared_err = (estimate-true_tau)**2,
              k = as.factor(k))

plt_data <- dat %>%
  group_by(method, k, rho) %>%
  summarize(bias = abs(mean(estimate) - true_tau),
            median_gamma = median(gamma),
            variance = var(estimate),
            mse = bias^2 + variance) %>%
  ungroup()
```

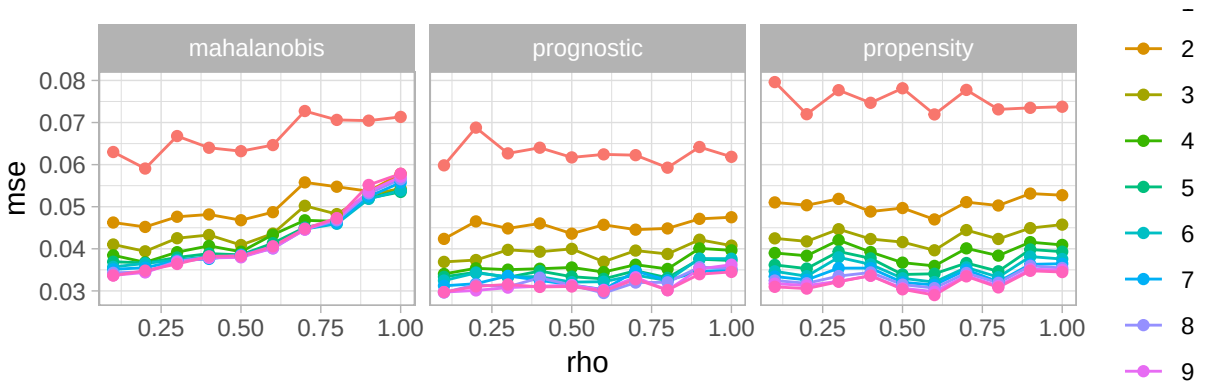
```
ggplot(plt_data, aes(x = rho, y = bias, group = k, color = k)) + geom_line() + geom_point() + facet_wra
```




```
ggplot(plt_data, aes(x = rho, y = variance, group = k, color = k)) + geom_line() + geom_point() + facet
```




```
ggplot(plt_data, aes(x = rho, y = mse, group = k, color = k)) + geom_line() + geom_point() + facet_wrap
```




```
ggplot(plt_data, aes(x = rho, y = median_gamma, group = k, color = k)) + geom_line() + geom_point() + fa
```