

Applied Statistics (Chapter 5)

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Chapter 5

Section 5.7

```
# Generate  $p_1, p_2, \dots, p_{1000} \sim i.i.d. \text{Beta}(14.26, 23.19)$ 
p=rbeta(1000, 14.26, 23.19)
# Estimate  $E(p^2)$  by the sample mean  $\sum_{i=1}^{1000} p_i^2/1000$ 
est=mean(p^2)
# Compute the standard error of the estimate
se=sd(p^2)/sqrt(1000)
c(est,se)
```