

# A29\_Hoermann

*Paul Hörmann*

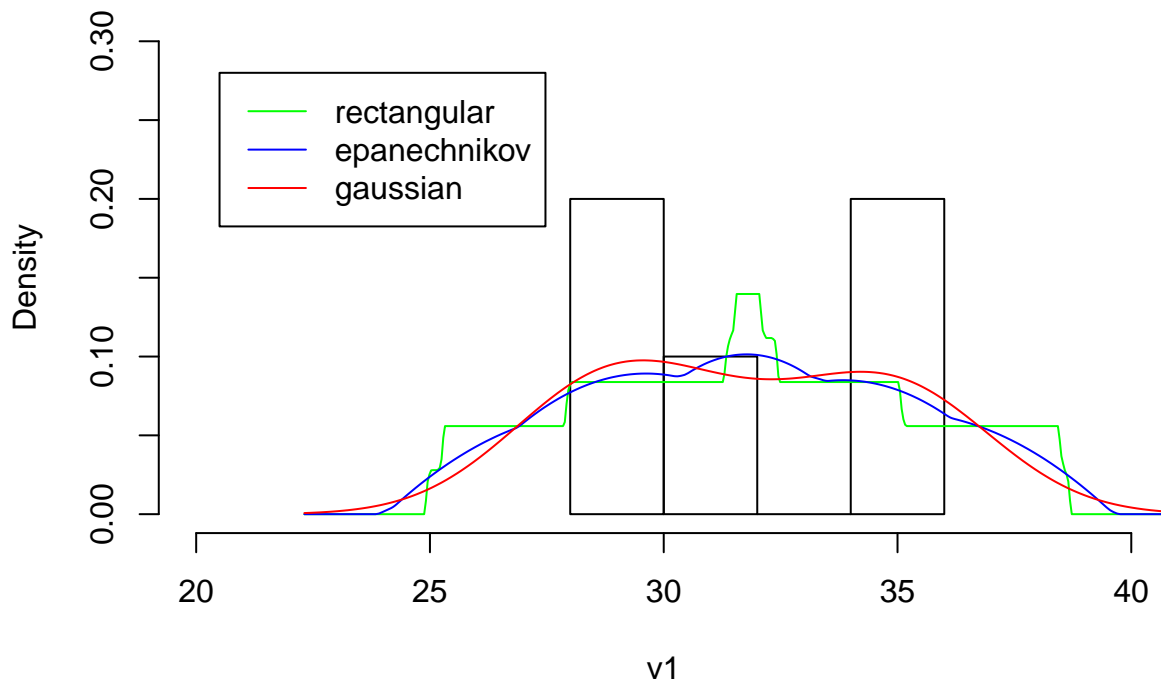
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```
v1 = rnorm(n = 5, mean = 30, sd = 3)
v2 = runif(n = 5, min = 20, max = 40)
v3 = rnorm(n = 50, mean = 30, sd = 3)
v4 = runif(n = 50, min = 20, max = 40)
```

## Visualization

```
hist(v1, probability = TRUE, xlim = c(20, 40), ylim = c(0, 0.3))
lines(density(v1, kernel = "rectangular"), col = "green", )
lines(density(v1, kernel = "epanechnikov"), col = "blue")
lines(density(v1, kernel = "gaussian"), col = "red")
legend(x = 20.5, y = 0.28,
      legend = c("rectangular", "epanechnikov", "gaussian"),
      col = c("green", "blue", "red"),
      lty=1, cex = 1)
```

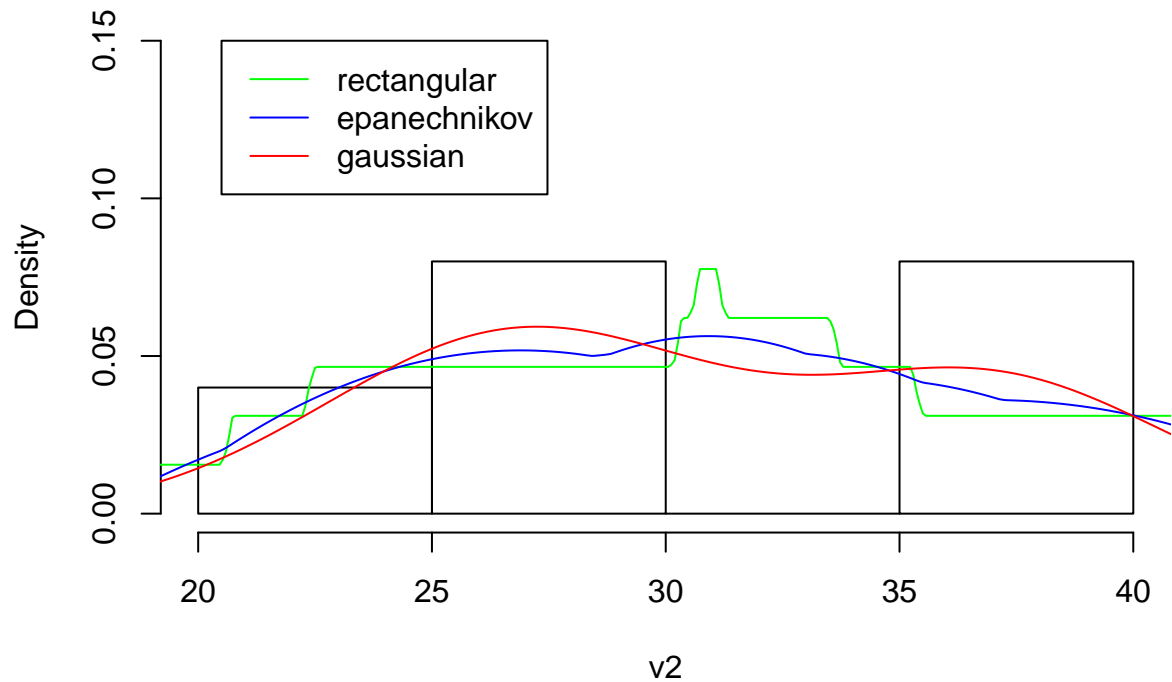
**Histogram of v1**



```
hist(v2, probability = TRUE, xlim = c(20, 40), ylim = c(0, 0.15))
lines(density(v2, kernel = "rectangular"), col = "green")
lines(density(v2, kernel = "epanechnikov"), col = "blue")
lines(density(v2, kernel = "gaussian"), col = "red")
legend(x = 20.5, y = 0.15,
      legend = c("rectangular", "epanechnikov", "gaussian"),
```

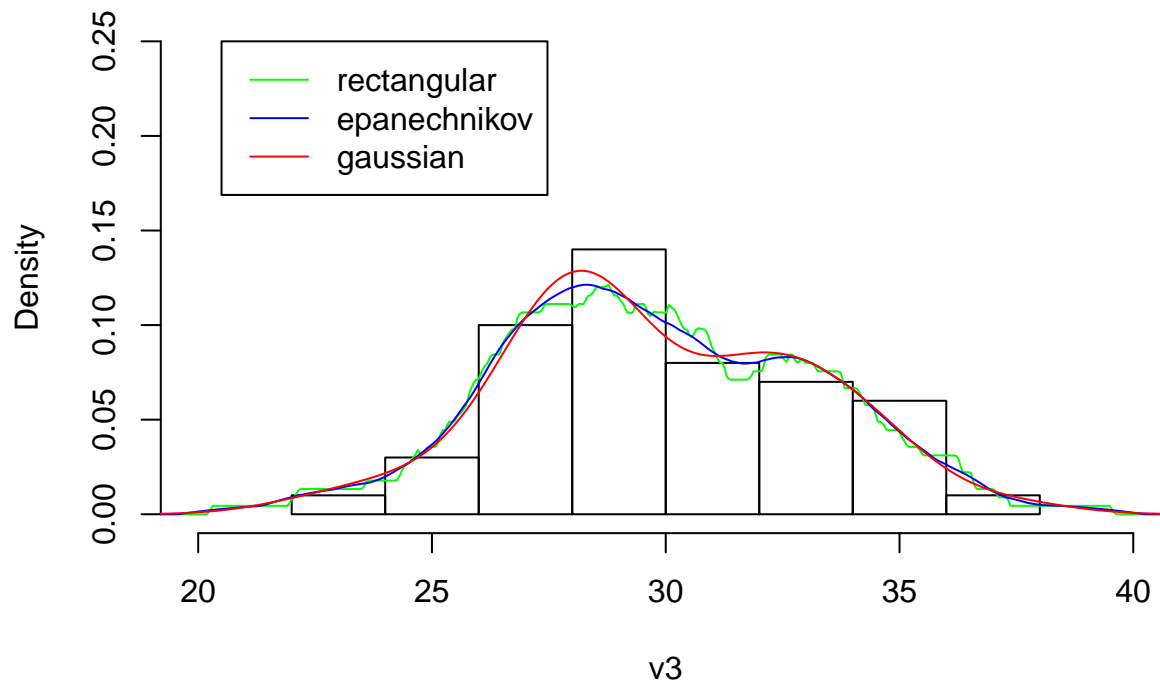
```
col = c("green", "blue", "red"),
lty=1, cex = 1)
```

## Histogram of v2



```
hist(v3, probability = TRUE, xlim = c(20, 40), ylim = c(0, 0.25))
lines(density(v3, kernel = "rectangular"), col = "green")
lines(density(v3, kernel = "epanechnikov"), col = "blue")
lines(density(v3, kernel = "gaussian"), col = "red")
legend(x = 20.5, y = 0.25,
      legend = c("rectangular", "epanechnikov", "gaussian"),
      col = c("green", "blue", "red"),
      lty=1, cex = 1)
```

## Histogram of v3



```
hist(v4, probability = TRUE, xlim = c(20, 40), ylim = c(0, 0.15))
lines(density(v4, kernel = "rectangular"), col = "green")
lines(density(v4, kernel = "epanechnikov"), col = "blue")
lines(density(v4, kernel = "gaussian"), col = "red")
legend(x = 19.5, y = 0.15,
       legend = c("rectangular", "epanechnikov", "gaussian"),
       col = c("green", "blue", "red"),
       lty=1, cex = 1)
```

**Histogram of v4**

