Ansari-Bradley Permutation Test

Ryan Honea

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Data Entry

```
dta <- rbind(
  cbind(rnorm(20,0,2),rep(0,20)),
  cbind(rnorm(20,0,1),rep(1,20))
)

dta <- data.frame(
  y = dta[,1],
  x = factor(dta[,2])
)
```

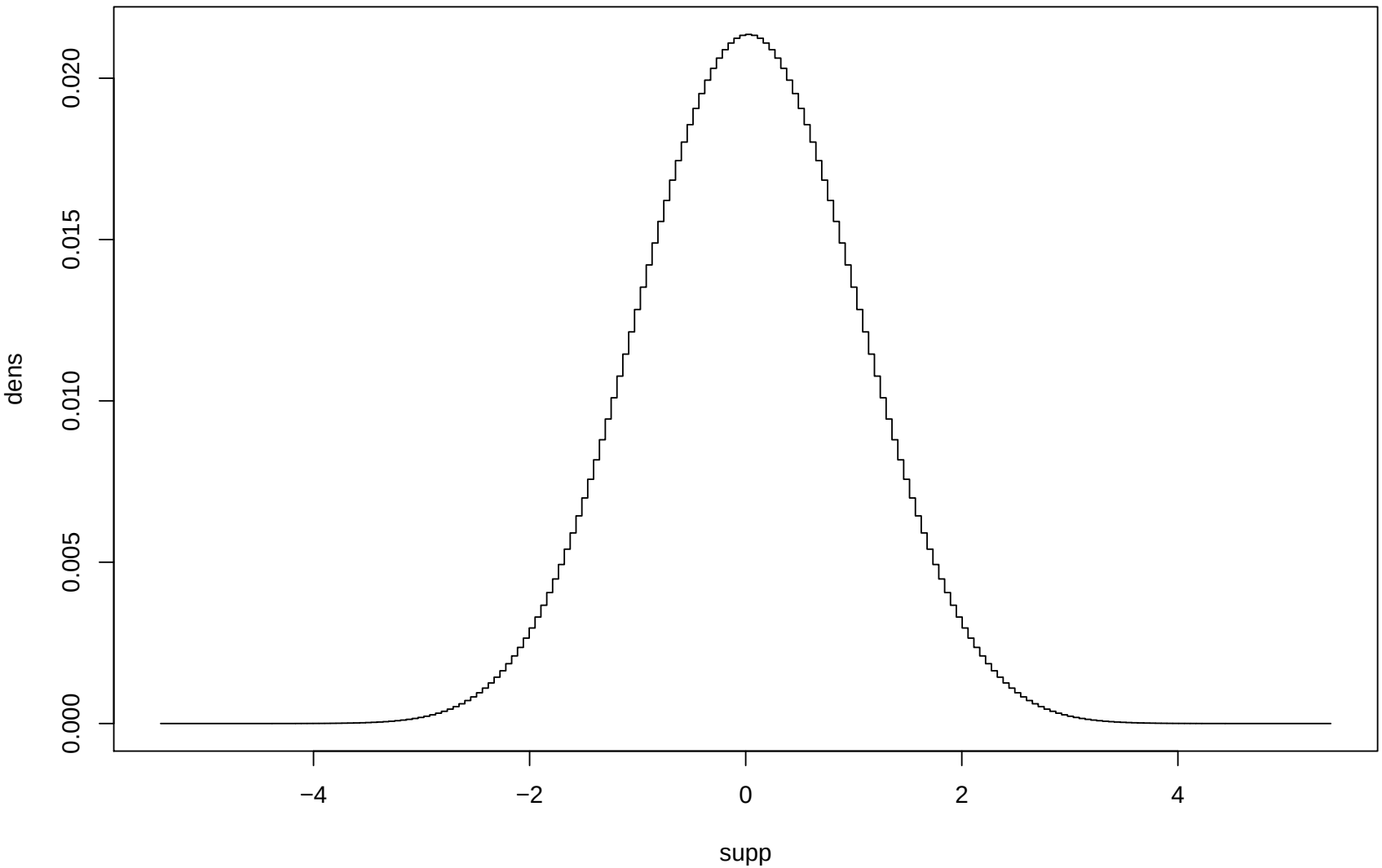
Obtaining Density

```
## Ansari-Bradley Test
at <- ansari_test(y ~ x, data = dta, distribution = "exact"

## Creating density of the test-statistic
supp <- support(at)
dens <- dperm(at, x = supp)
```

Plot of density

```
plot(supp, dens, type = "s")
```



P-Values for Difference of Scale

```
## Finds Quantile
qperm(at, p = 0.95)
```

```
## [1] 1.62453
```

```
## One-sided p-value
pperm(at, q = statistic(at))
```

```
##           0
## 0.005334937
```

```
## Random number generation
rperm(at, n = 5)
```

```
## [1]  0.595661  1.245473 -2.328493 -0.216604 -0.270755
```