

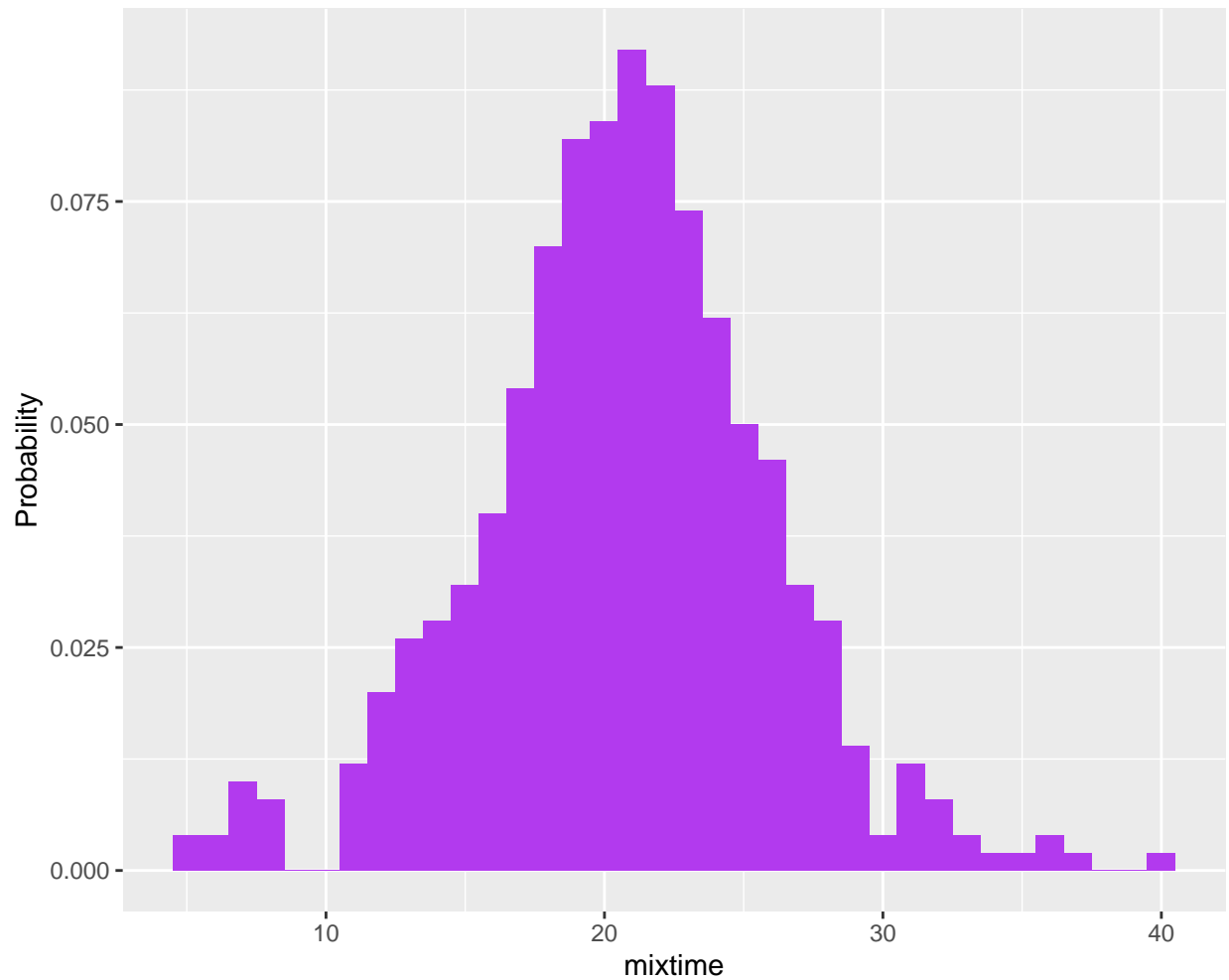
# Spectral Statistics of Normal Random Matrices

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## Consecutive Ratio Sequence: Symmetric Normal Matrix

```
##           [,1]      [,2]      [,3]      [,4]
## [1,]  0.38642467  1.9932102  0.09087436 -0.5773773
## [2,]  1.99321021  2.2149810  3.15155919  0.9631006
## [3,]  0.09087436  3.1515592  0.43657690 -2.4327529
## [4,] -0.57737730  0.9631006 -2.43275285  0.6162738
## [1] "This batch is 100% mixed."
```

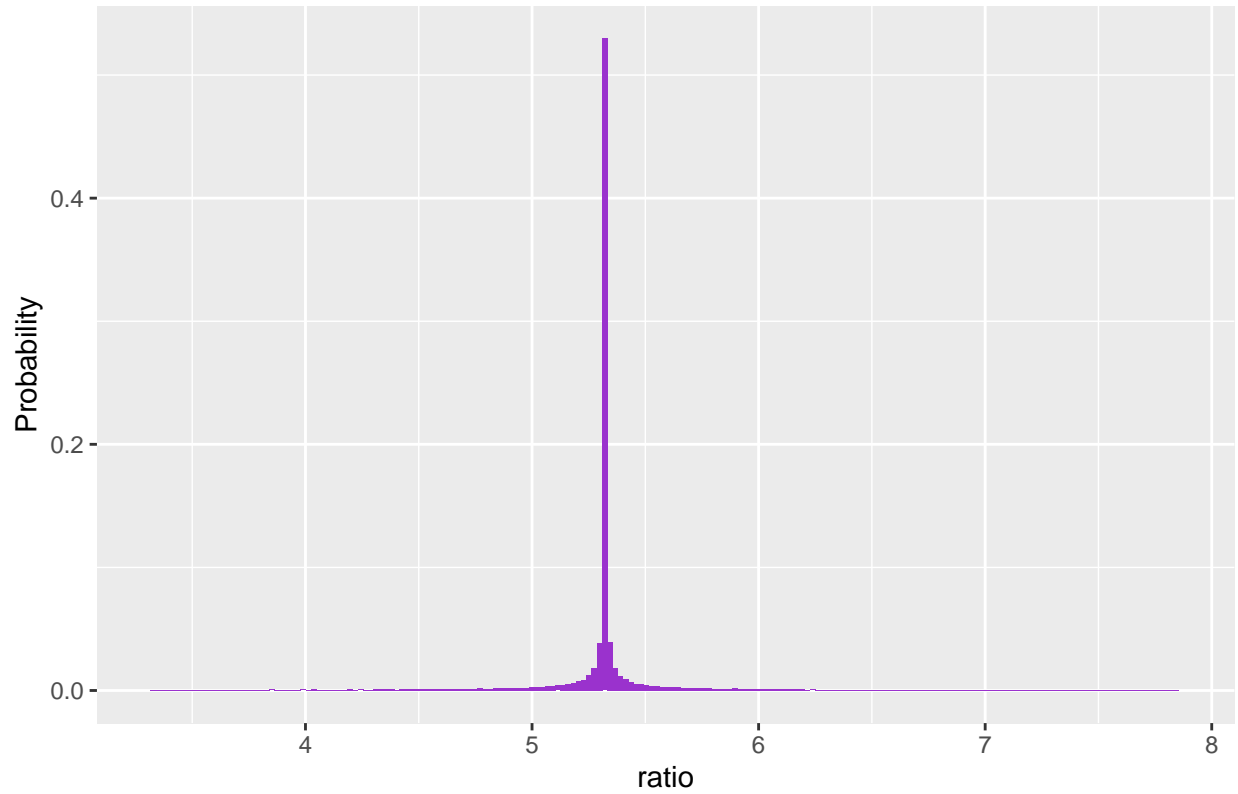
Mixing Time Distribution for a Symmetric Normal Random Matrix



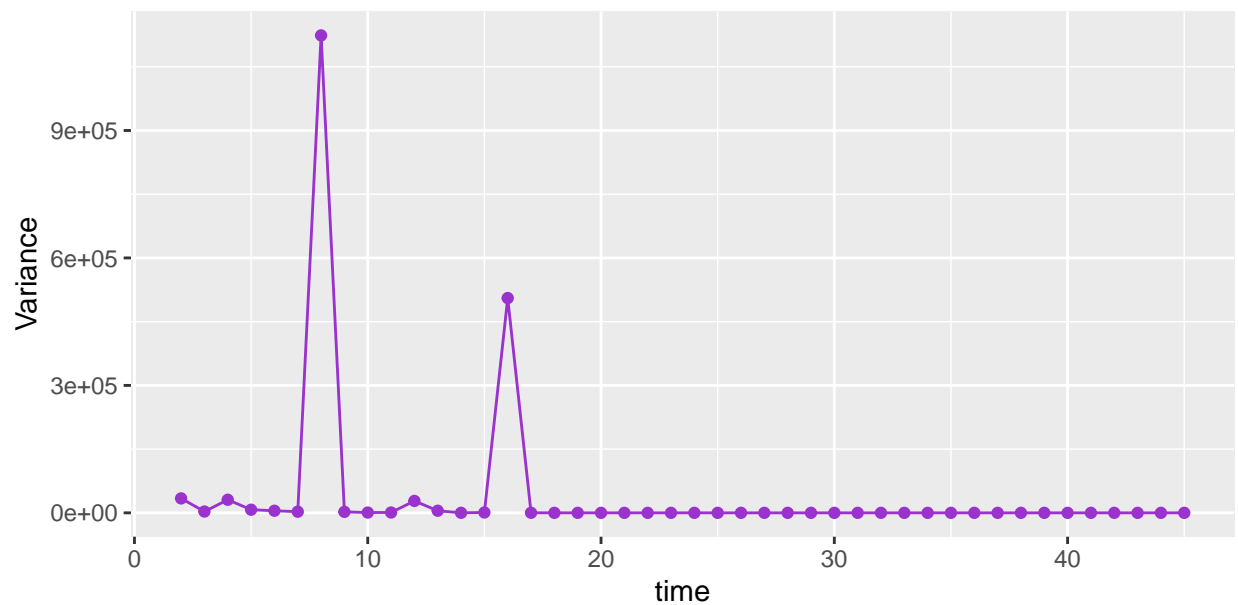
```
## [1] "Eigenvalues of the Matrix"
```

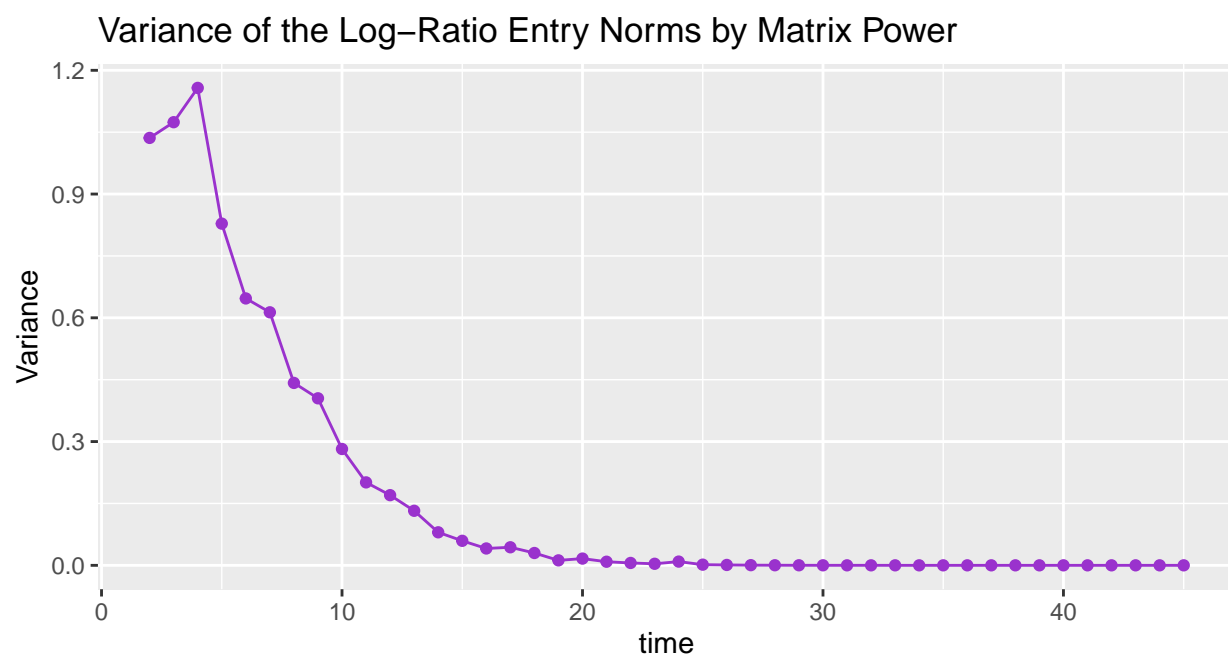
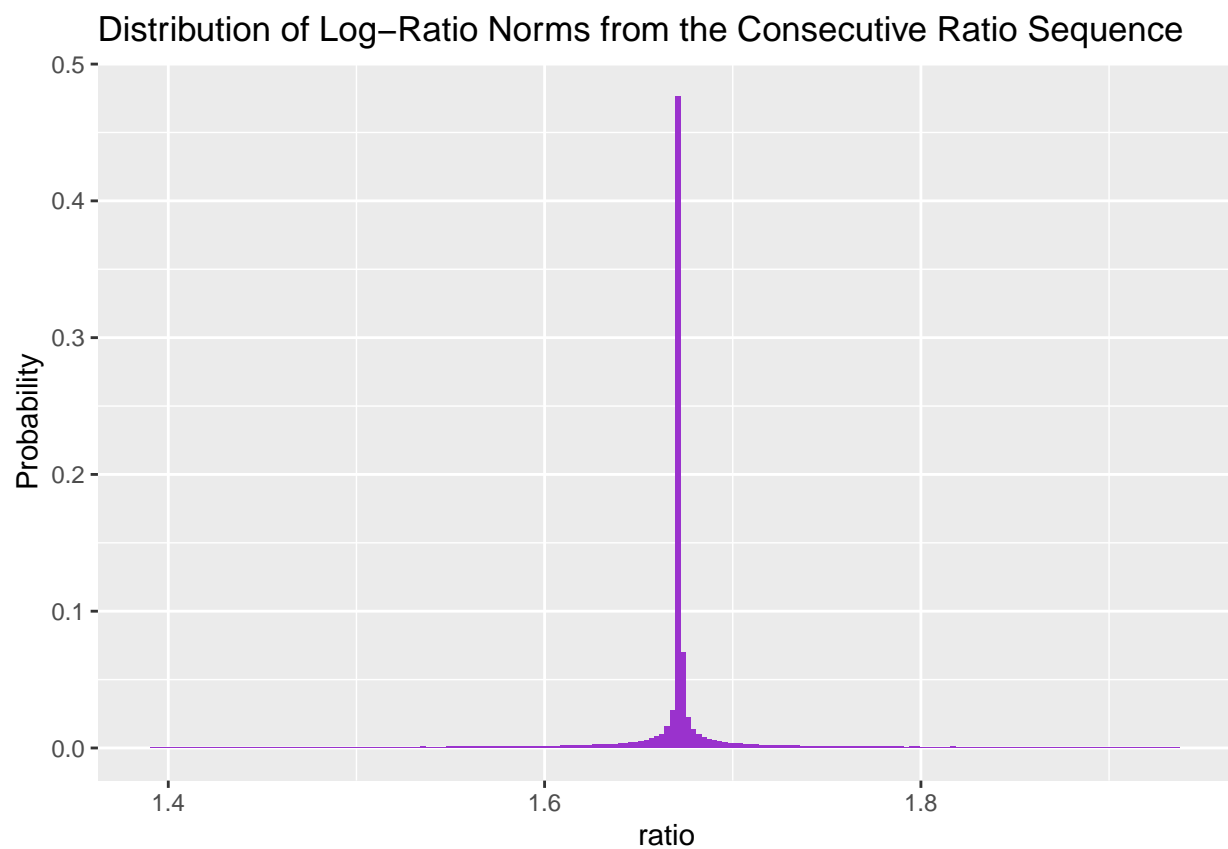
```
##      Re Im Index
## 1  5.32118 0    1
## 2  2.11870 0    2
## 3  0.08733 0    3
## 4 -3.87295 0    4
```

Distribution of Ratio Norms from the Consecutive Ratio Sequence



Variance of the Ratio Entry Norms by Matrix Power





Ratio of Two Normal Variables (Cauchy Distribution)

