**compstat/R/vMSim.R**        **Memory**    **Time**

```r
1      ## ---- vmsim-slow ----
2      sample_vonmises_slow <- function(n, kappa) {
3        y <- numeric(n)
4
5        for (i in seq_len(n)) {
6          reject <- TRUE
7
8          while (reject) {
9            y0 <- runif(1, -pi, pi)
10           u <- runif(1)
11           reject <- u > exp(kappa * (cos(y0) - 1))
12         }
13
14         y[i] <- y0
15       }
16
```

| | Memory | Time |
|---|---|---|
| line 9 | 0.7 | 30 |
| line 10 | 0.2 | 10 |



```
runif              | u <- runif(1)              |        runif                 |
sample_vonmises_slow
0        5        10       15       20       25       30       35       40       45
```