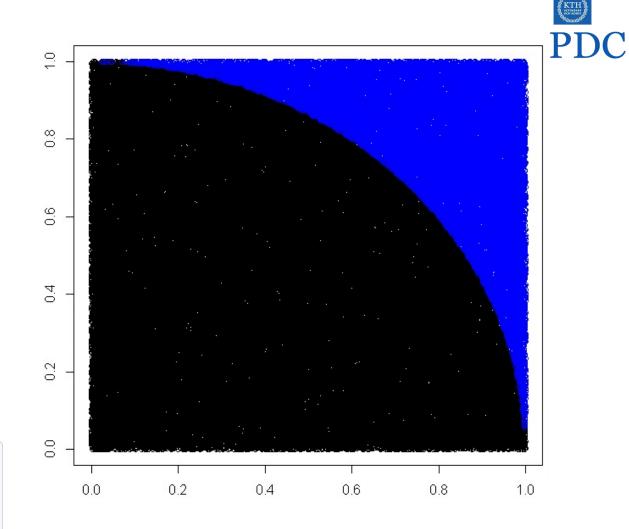
Example: Calculate PI using montecarlo

HPC2N

- 1. Randomize a number of x and y values (0-1)
- 2. Calculate distance from origo
- 3. Count values with distance <= 1
- 4. Multiply by 4 since we have a quarter circle

Example on how to calculate PI from 100 values

```
y <- runif(100)
x <- runif(100)
z <- sqrt(x^2+y^2)
res <- length(which(z<=1))*4/length(z)</pre>
```





Lab: Calculate PI using apply

- 1. Implement the function calcpi using any of the **apply** functions
- 2. Time your code