proc_using_spatstat

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```
library(spatstat)
```

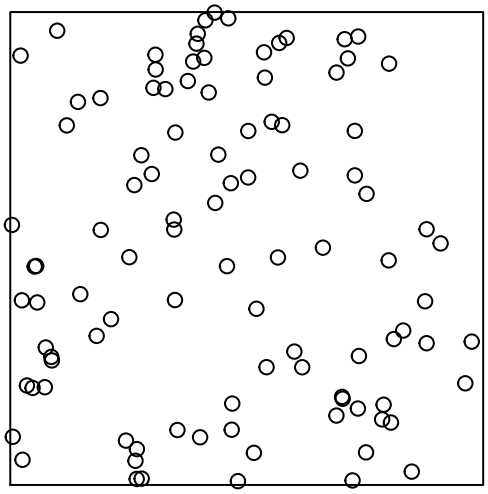
```
# Check to see how to use the function
?rpoispp
# Check to see how this is written
#View(rpoispp)
```

```
# Plot a homogeneous Poisson process
# p.1334 of https://mran.microsoft.com/snapshot/2016-04-25/web/packages/spatstat/spatstat.pdf
# https://spatstat.org/SSAI2017/solutions/solution04.html

lmbda = 100

plot(rpoispp(lambda = lmbda, win=square(1)),
     main = "homogeneous Poisson process rate = 100")
```

homogeneous Poisson process rate = 100

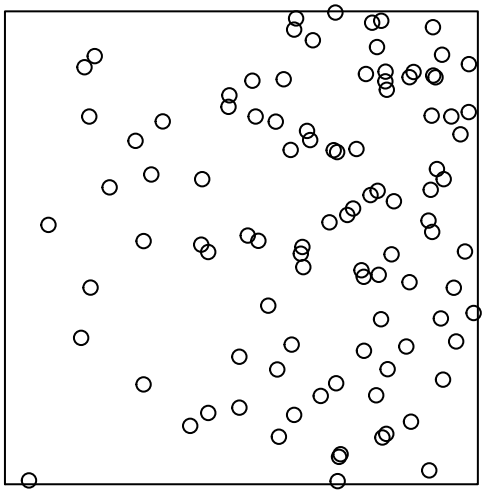


```
# Plot a homogeneous Poisson process
# p.33 of https://spatstat.org/resources/spatstatJSSpaper.pdf

lmbda_function <- function(x, y) 200 * x

plot(rpoispp(lambda = lmbda_function, win=square(1)),
     main = "nonhomogeneous Poisson process rate = 100")
```

nonhomogeneous Poisson process rate = 100

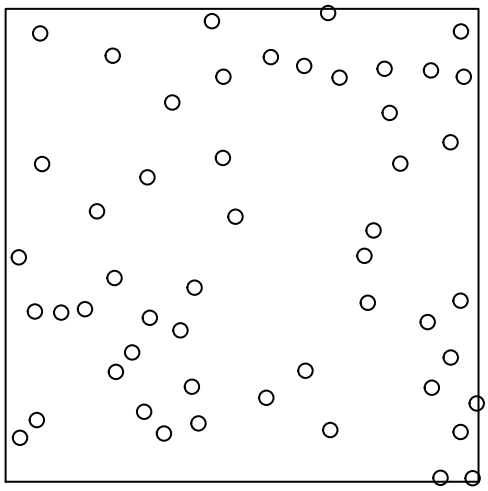


```
?rMaternII
```

```
# Plot a Matern I process

plot(rMaternI(kappa = 100, r = 0.05),
     main = "Matern I process kappa = , r = ")
```

Matern I process kappa = , r =



```
# Plot a Matern II process

plot(rMaternII(kappa = 100, r = 0.05),
     main = "Matern II process kappa = , r = ")
```

Matern II process kappa = , r =