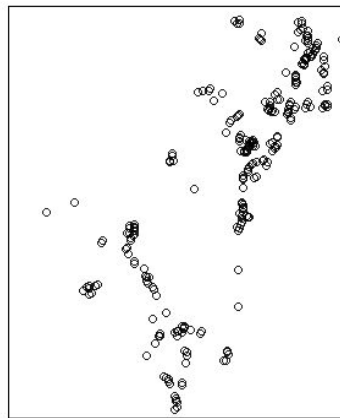


Sprawozdanie  
Geostatystyka  
Natalia Gadocha 304165  
WGGiOŚ Geoinformatyka II  
INTENSYWNOŚĆ PROCESU PUNKTOWEGO

**1**

```
data(murchison$gold)
gold = murchison$gold
summary(gold)
lam = 255/(1.32497e+11)
```

**murchison\$gold**



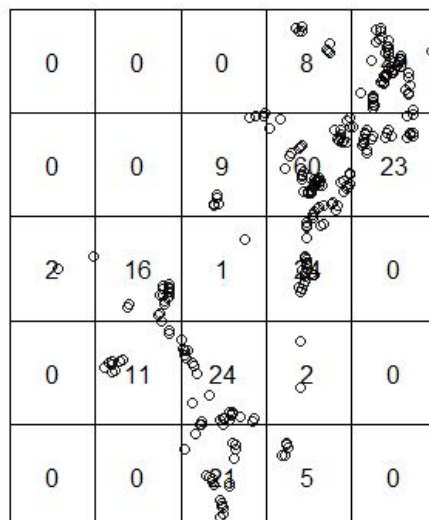
**2**

```
data(murchison)
```

**3**

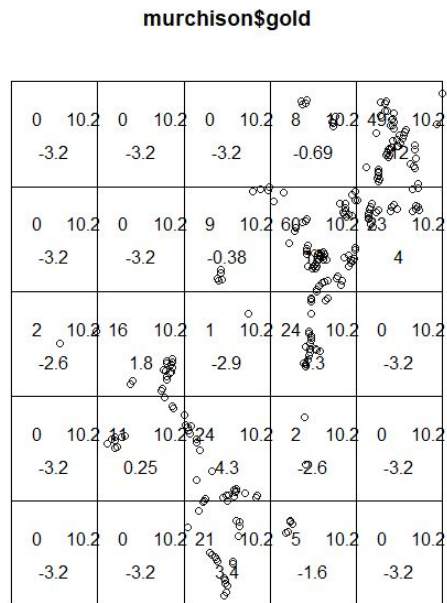
```
plot(murchison$gold)
```

**murchison\$gold**



4

```
q <- quadratcount(murchison$gold, nx = 5, ny = 5 )
plot(murchison$gold)
pq = plot(q, add = TRUE)
```



5

```
M = quadrat.test(murchison$gold, nx = 5, ny = 5)
plot(murchison$gold)
plot(M, add = TRUE)
```

p-value wynosi  $< 2.2e-16$ , co powoduje, że możemy odrzucić hipotezę zerową. Czyli odrzucamy hipotezę dotyczącą całkowicie losowego rozmieszczenia punktów. Możemy zauważyć powyżej również, że wiele z mniejszych prostokątów zawiera tą podobne lub takie same wartości.

```
> pq = plot(q, add = TRUE)
> M = quadrat.test(murchison$gold, nx=5, ny=5)
> M

      Chi-squared test of CSR using quadrat counts

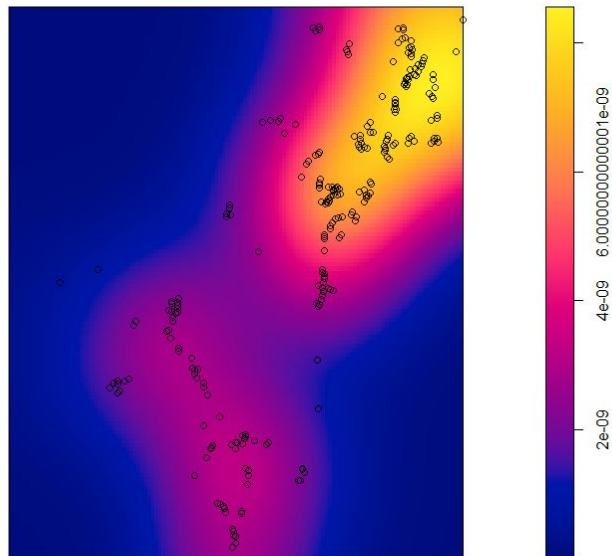
data:  murchison$gold
x2 = 595.88, df = 24, p-value < 2.2e-16
alternative hypothesis: two.sided

Quadrats: 5 by 5 grid of tiles
```

III

```
plot(density(murchison$gold))  
plot(murchison$gold, add = TRUE)
```

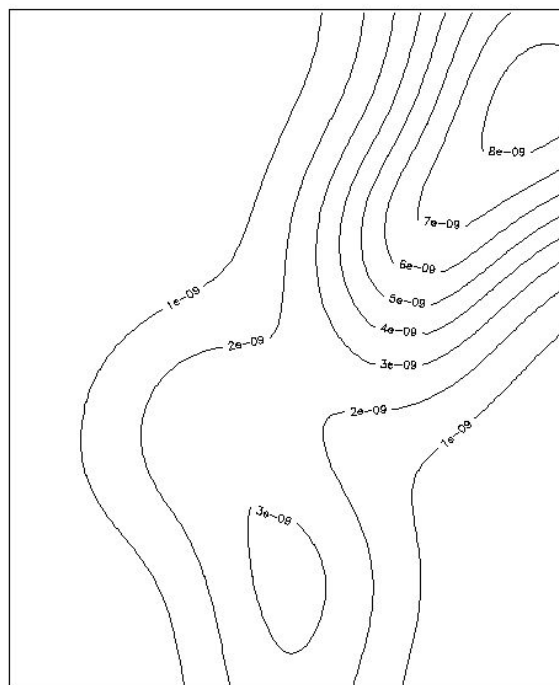
density(murchison\$gold)



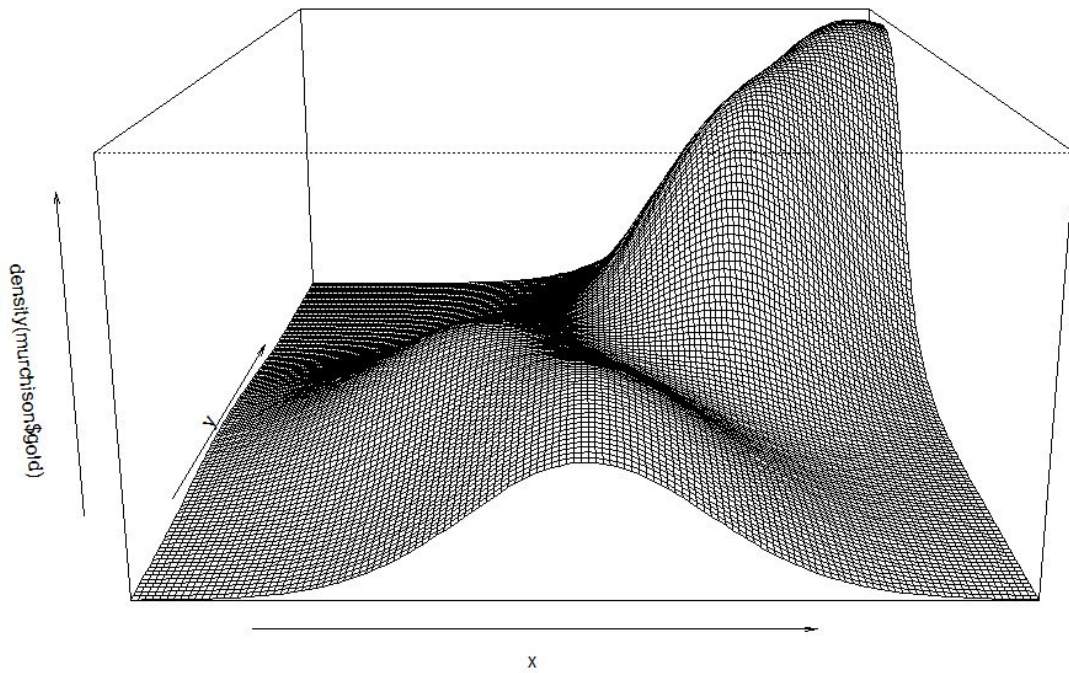
6

```
contour(density(murchison$gold))
```

density(murchison\$gold)



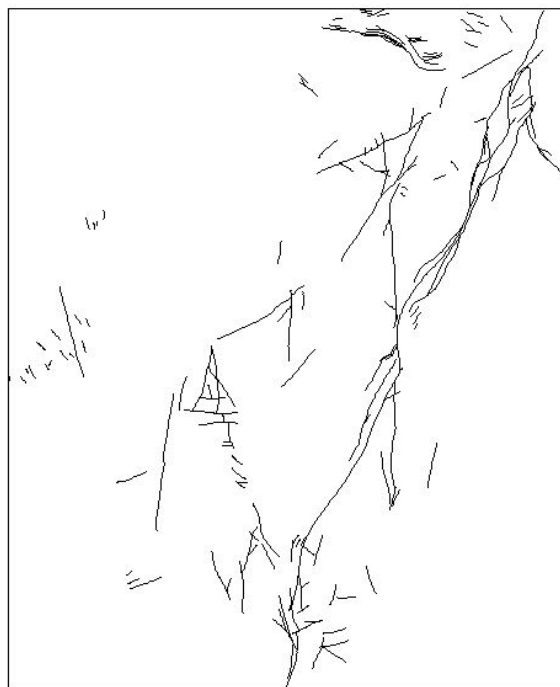
```
persp(density(murchison$gold))  
density(murchison$gold)
```



IV  

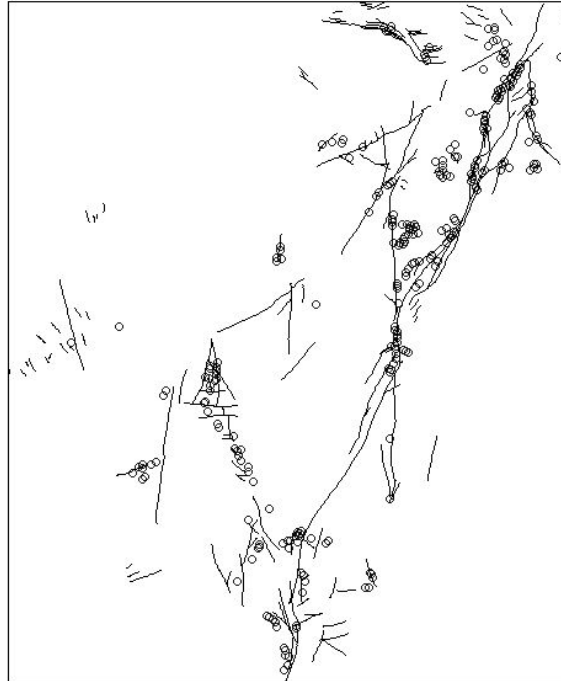
```
plot(murchison$faults)
```

  
murchison\$faults



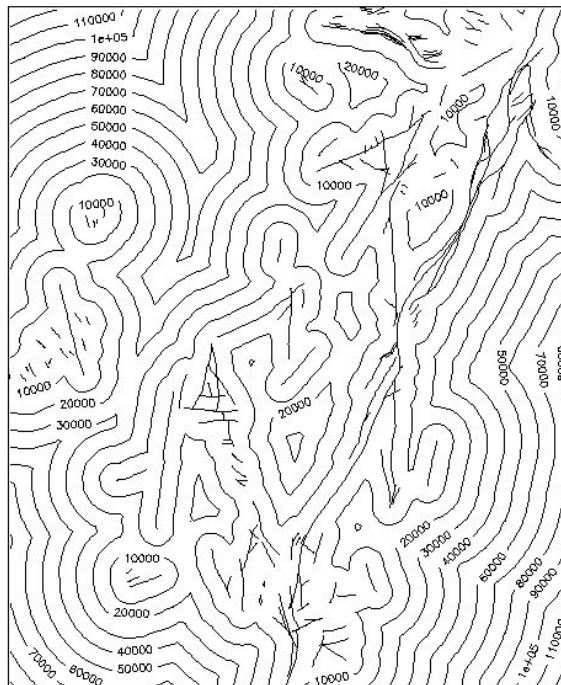
7

```
plot(murchison$faults)
plot(murchison$gold, add = TRUE)
murchison$faults
```



8

```
contour(distmap(murchison$faults))
plot(murchison$faults, add= TRUE)
distmap(murchison$faults)
```



9

```
plot(rhohat(murchison$gold, distmap(murchison$faults)), main =
      "gold and faults")
```

