Primer post del blog

JosÃ© Eduardo Jaramillo Barrera

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Estructura industrial en Tijuana

Número de empresas por subsector industrial en Tijuana

En la ciudad de Tijuana se pueden encontrar una gran variedad de empresas de diferentes subsectores, sin embargo es interesante conocer qué sectores cuentan con mayor cantidades para poder echar un vistazo a la composición industrial en la ciudad.

```
denue <- readRDS("denue.rds")

dat <- denue %>%
  mutate(lat = latitud,
         long = longitud) %>%
  select(lat, long, latitud, longitud, per_ocu, codigo_act, ageb, codigo_industria)

m <- dat

ymax <- max(dat$lat)
ymin <- min(dat$lat)

xmax <- max(dat$long)
xmin <- min(dat$long)

w <- owin(xrange = c(xmin, xmax), yrange = c(ymin, ymax))

tj <- ppp(dat$long, dat$lat, window = w, marks = m)
```

```
## Warning: data contain duplicated points
```

```
summary(tj)
```

```
## Marked planar point pattern:  55811 points
## Average intensity 603089.3 points per square unit
##
## *Pattern contains duplicated points*
##
## Coordinates are given to 6 decimal places
##
## Mark variables: lat, long, latitud, longitud, per_ocu, codigo_act, ageb,
## codigo_industria
## Summary:
##       lat              long            latitud          longitud
##  Min.   :32.37   Min.   :-117.1   Min.   :32.37   Min.   :-117.1
##  1st Qu.:32.49   1st Qu.:-117.0   1st Qu.:32.49   1st Qu.:-117.0
##  Median :32.51   Median :-117.0   Median :32.51   Median :-117.0
##  Mean   :32.50   Mean   :-117.0   Mean   :32.50   Mean   :-117.0
##  3rd Qu.:32.53   3rd Qu.:-116.9   3rd Qu.:32.53   3rd Qu.:-116.9
```

```
##  Max.   :32.56   Max.   :-116.6   Max.   :32.56   Max.   :-116.6
##
##                per_ocu        codigo_act         ageb
##  31 a 50 personas  :  824   461110 : 7110   3357   : 1397
##  0 a 5 personas    :44888   812110 : 2786   2946   : 1274
##  51 a 100 personas :  593   463211 : 1529   0051   : 1209
##  6 a 10 personas   : 5163   813210 : 1490   3395   : 1069
##  11 a 30 personas  : 3684   466410 : 1343   3431   : 1061
##  101 a 250 personas:  364   811111 : 1324   2931   : 1054
##  251 y mas personas:  295   (Other):40229   (Other):48747
##  codigo_industria
##  Length:55811
##  Class :character
##  Mode  :character
##
##
##
##
##
## Window: rectangle = [-117.12394, -116.61468] x [32.37349, 32.5552] units
## Window area = 0.0925418 square units
```

```
length(levels(dat$codigo_act))
```

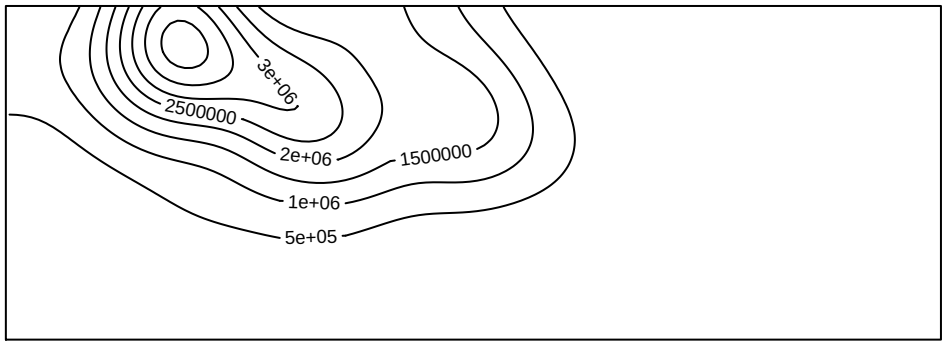
```
## [1] 746
```

Density

2d-density

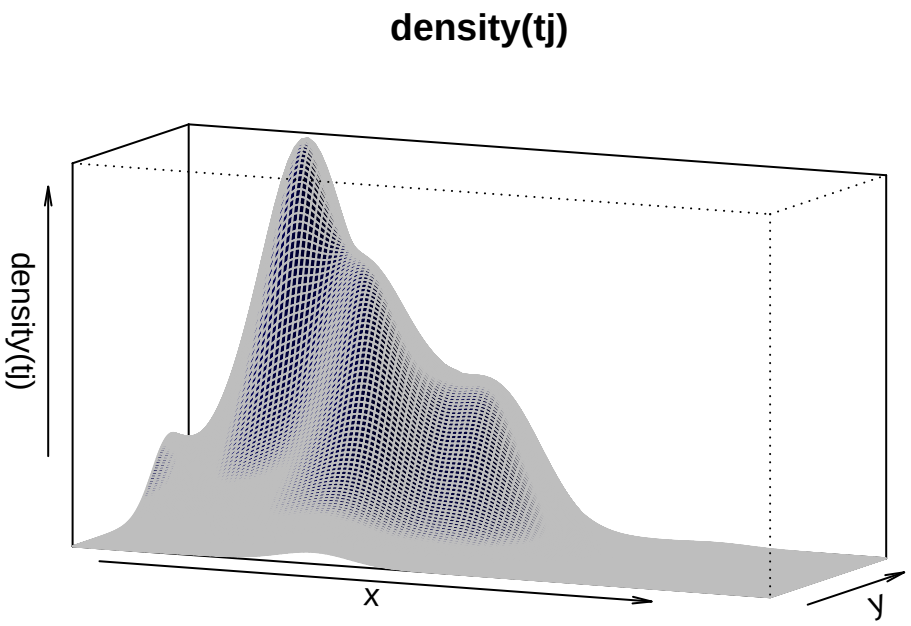
To get an impression of local spatial variations in intensity, we plot a kernel density estimate of intensity.

```
contour(density(tj), axes = FALSE)
```



3d-density

```
persp(density(tj), phi = 9, theta = 25, shade = 0.9 , col = "blue", border = "grey", scale = FALSE)
```


density(tj)
density(tj)
x
y