

Ripley's function

of points

$$K(d) = \frac{A}{n^2} \sum_{i=1}^n \sum_{j=1}^n \mathbb{I} \left(\frac{d_{ij}}{A} \leq d \right)$$

distance

Select a distance

Area of Study

$\mathbb{I} \left(\frac{d_{ij}}{A} \leq d \right) = 1$ between i th and j th pt.

def RK (data, distance) $d_{ij} \leq d = 0$

data = API

Area = max (data[:, 0]) - min (data[:, 0])

x max (data[:, 1]) - min (data[:, 1])

n = len (data)

k-value = []

Calculate d.

~~for data:~~

for d in distance

count = 0

for i in range (n):

for j in range (n):

if $i \neq j$, & $d_{ij} \leq d$

count += 1

k-val = k-val.appended ($\frac{\text{Area}}{n^2} \cdot \text{count}$)

return (k-val) → list

linalg.norm (x-y)