$d((x_1, y_1), (x_2, y_2))$

d

$(x_1, y_1), (x_2, y_2)$

$x_1 =$

x_2

$d((x_1, y_1), (x_2, y_2)) =$

$y_1 -$

y_2

$y_1 - y_2 y_1 - y_3 + y_3 - y_2$

y_3

$x_3 =$

$x_1 =$

x_2

$x_1 \neq$

x_2

$d((x_1 y_1), (x_2, y_2)) =$

$1 +$

$y_1 -$

y_2

$1 + y_1 - y_2 1 + y_1 - y_3 + y_3 - y_2,$

x_3

$(x_1 \neq$

$x_3) \vee$

$(x_2 \neq$

$x_3)$

$d((x_1, y_1), (x_3 y_3))$

1

$d((x_2, y_2), (x_3, y_3))$

X

(x, y)

$0 \leq$

$r \leq$

1

(x', y')

$B((x, y), r)$

(x, y)

r

$x' =$

x

$B((x, y), r) = \{(x', y') : x' = x, y' - y < r\},$

$\leq$

$[y -$

$r, y +$

$r]$

R^2

(R^2, d)

x_n

$f(x, y) \neq$

0

$f \in$

$C_c(X)$

K

$0 \leq$

$r \leq$

1

f

$$K \subset \bigcup_{i=1}^{n} B((x_i, y_i), r).$$

r

x

K

x_i

E

Λ

μ

$\mu(E) =$

∞

$V :=$

$\{(x, y) :$

$y \in$

$(-\epsilon, \epsilon)\}$

$\epsilon >$

0

$\epsilon <$

1

V

$$E_n := \bigcup_{i=1}^{n} \overline{B((x_i, 0), \epsilon/2)},$$

x_i

x_i