

$f(x, y)$ omogenea
di grado n di omogeneità
se
 $\forall t \in \mathbb{R} \quad f(tx, ty) = t^n f(x, y)$

$$C: f(x, y) = 0$$

f omogenea

$$\text{Sia } \bar{P} \equiv (\bar{x}, \bar{y}) \in C$$

$$\text{cioè } f(\bar{x}, \bar{y}) = 0$$

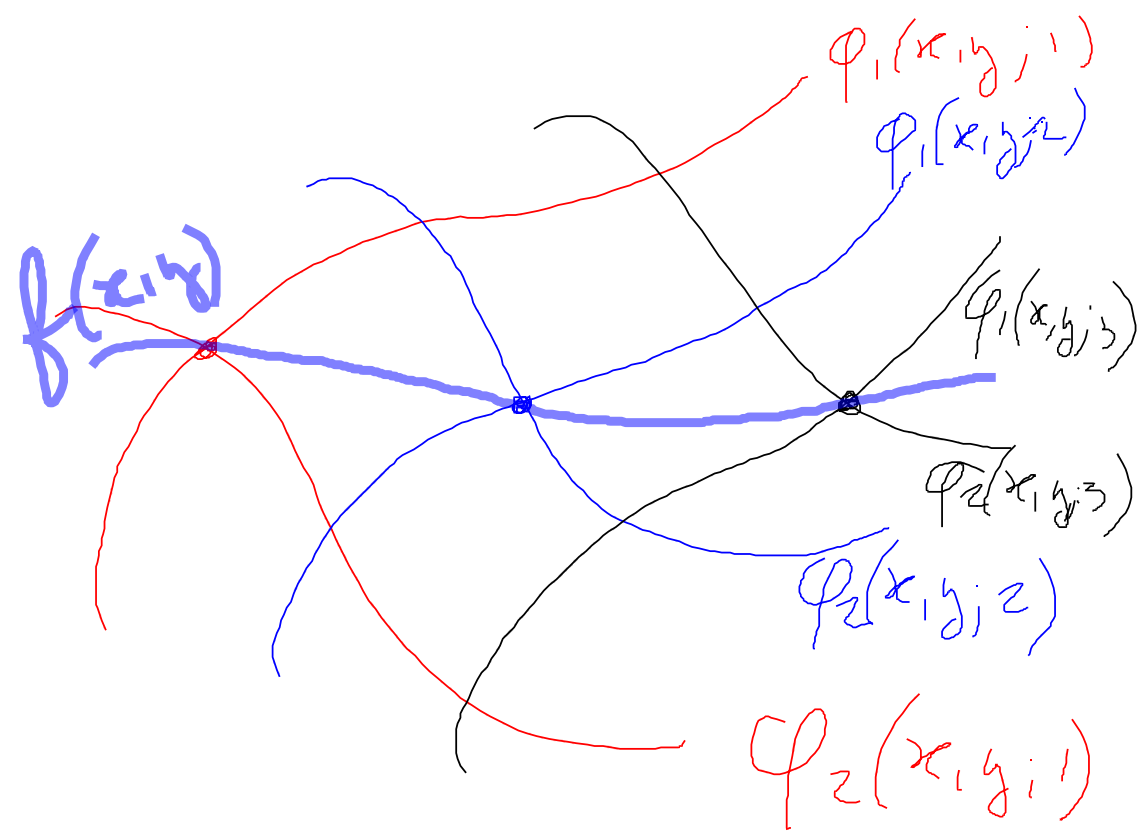
Il generico punto

P_t della retta OP

$$\text{è } P_t \equiv (t\bar{x}, t\bar{y})$$

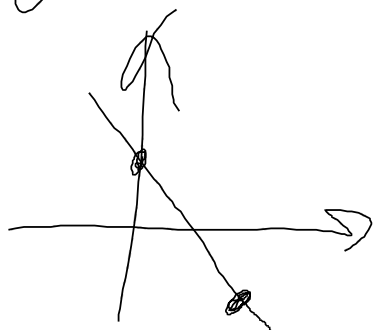
$$\begin{aligned} \text{Ma } f(t\bar{x}, t\bar{y}) &= \\ &= t^n f(\bar{x}, \bar{y}) = \\ &= t^n \cdot 0 = 0 \end{aligned}$$

Perciò ogni $P_t \in C$.



$$x + y - 1 = 0 \quad 5x + 5y - 5 = 0$$

$$\begin{cases} x = 4 \\ y = -4 + 1 \end{cases}$$



$$\begin{cases} x = \gamma + 2 \\ y = -\gamma - 1 \end{cases}$$

$$\begin{cases} x = -\alpha + 1 \\ y = \alpha \end{cases}$$

$$\begin{cases} x = \beta^3 \\ y = -\beta^3 + 1 \end{cases}$$