

tipica intersección transv. en \mathbb{R}^3

$X, Y \subset \mathbb{R}^3$ fijo γ no transv.

dim

0 * transv.

1 1 transv.

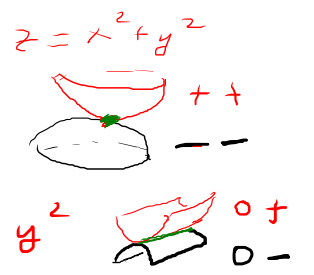
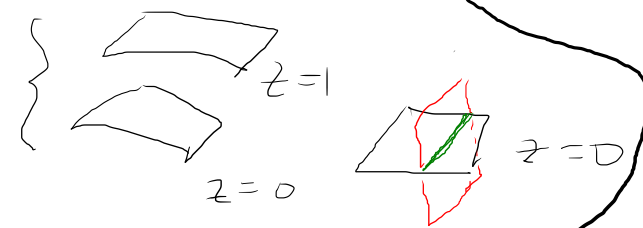
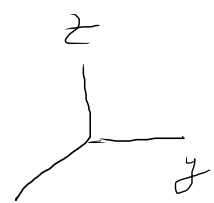
1 2 transv.

2 2 transv.

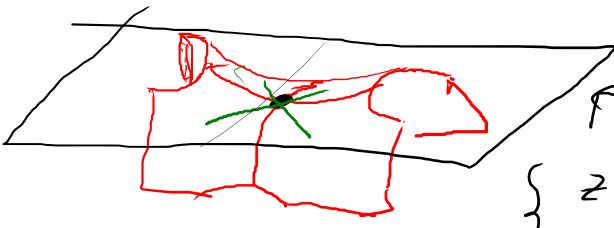
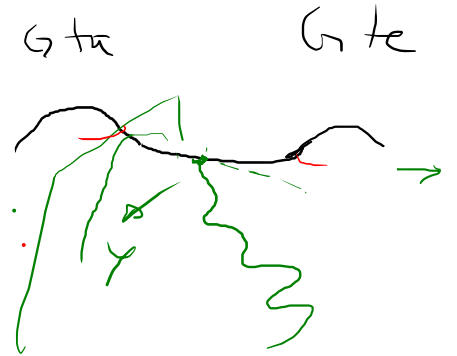
no transv en \mathbb{R}^3

(ϕ en \mathbb{R}^2)

($0, y, -y^3$)



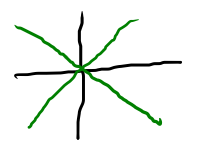
$z = xy$
 $\sim z = y^2 - x^2$
 "silla de montar"
 1 pase de montañas



$$\begin{cases} z=0 \\ z=x^2-y^2 \\ z=0 \end{cases} \Rightarrow \begin{cases} x^2=y^2 \\ y=\pm x \end{cases}$$



$$\begin{cases} xy=0 \\ x=z=0 \cup \{y=z=0\} \end{cases}$$

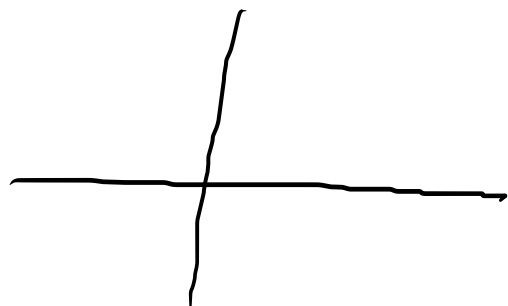


Conj. cerrado "interesante" en \mathbb{R}

$$\left\{ \frac{1}{n} \mid n \in \mathbb{N} \right\} \cup \{0\}$$

$$C = [0, 1] \setminus \bigcup_{\infty} \text{abiertos}$$

$$y = x^2 \left(\sin \frac{1}{x} \right)$$



Ej: toda matriz $n \times n$ se puede expresar
(de manera única) como la suma de
matrices simétrica y anti-simétrica

$$M = \left(\frac{M + M^t}{2} \right) + \left(\frac{M - M^t}{2} \right)$$

sim.

a.s.

$$M + M^t$$

$$M - M^t$$