

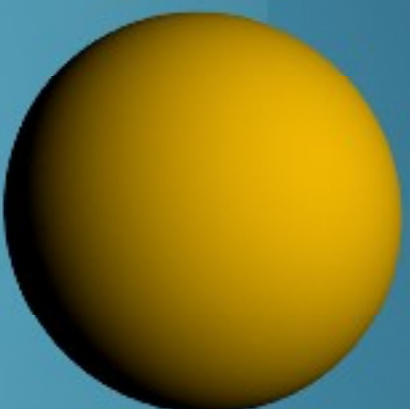
# Superficies en el Espacio Geométrica Analítica

Elaboraron:  
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Revisión:

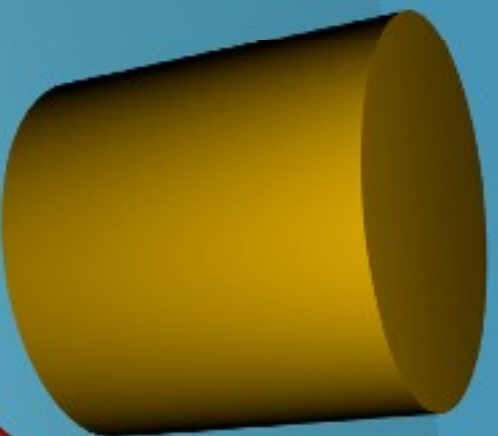
## Esfera

$$(x-h)^2 + (y-k)^2 + (z-l)^2 = a^2$$



## Cilindro

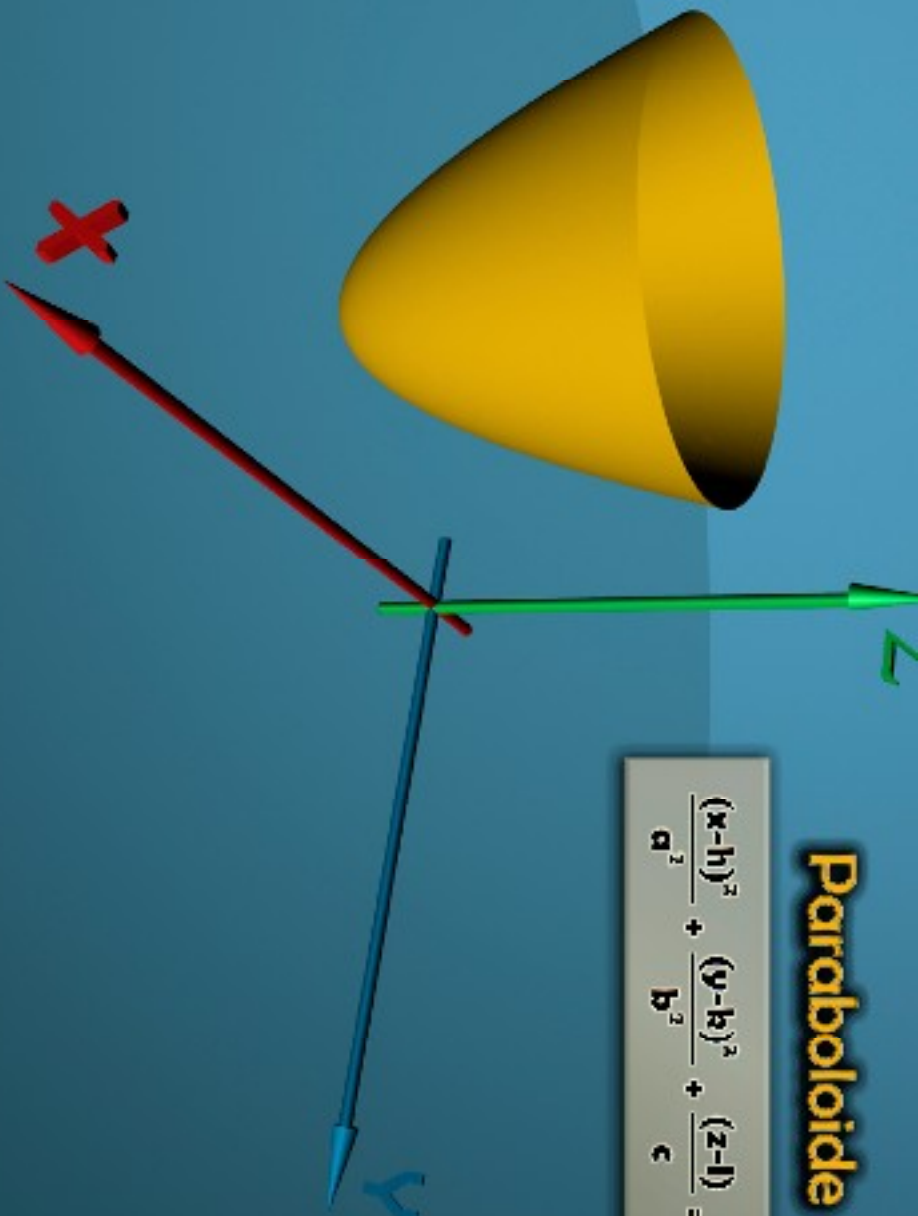
$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$$





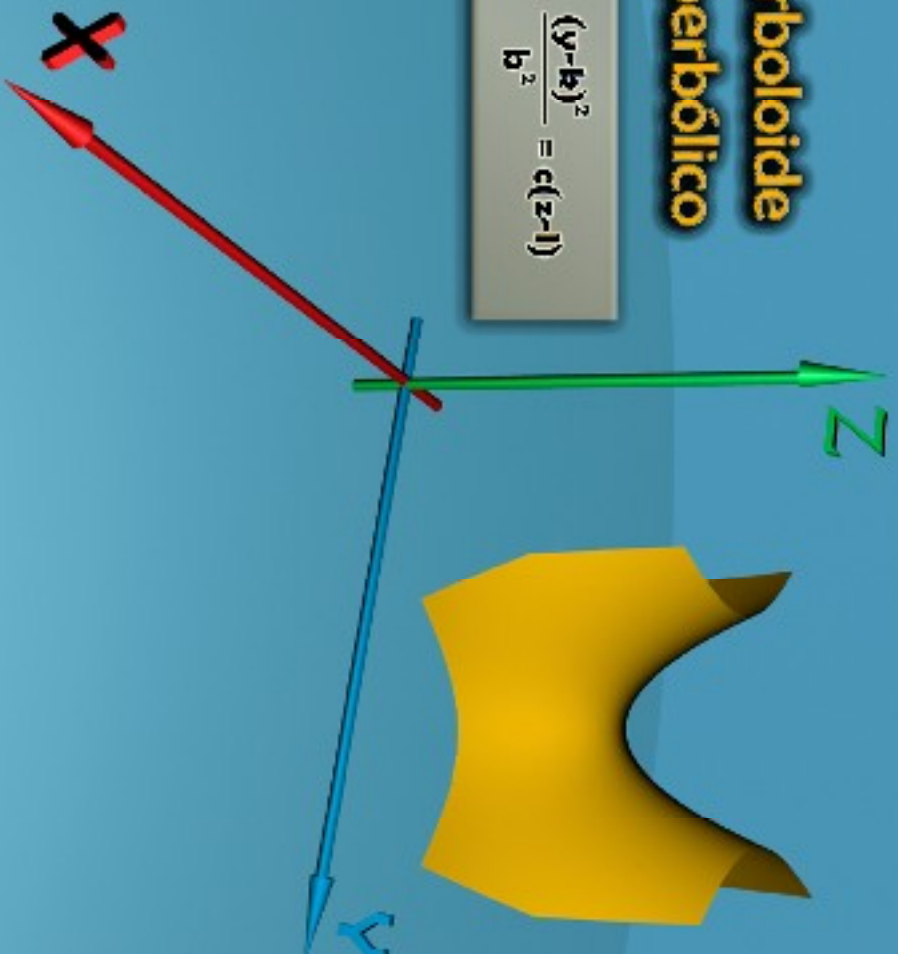
## Paraboloides

$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} + \frac{(z-l)}{c} = 1$$



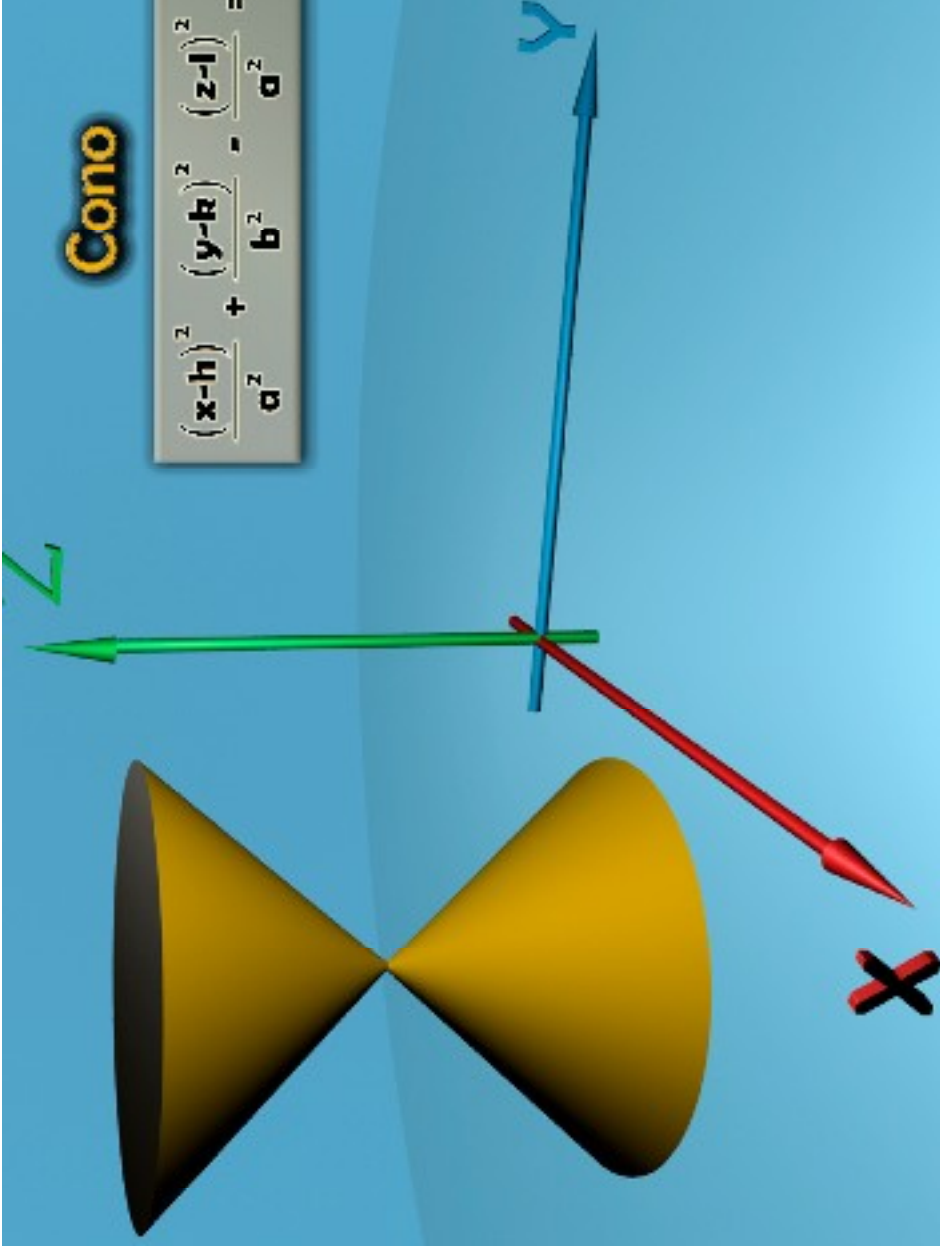
## Parboloide Hiperbólico

$$\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} = c(z-l)$$



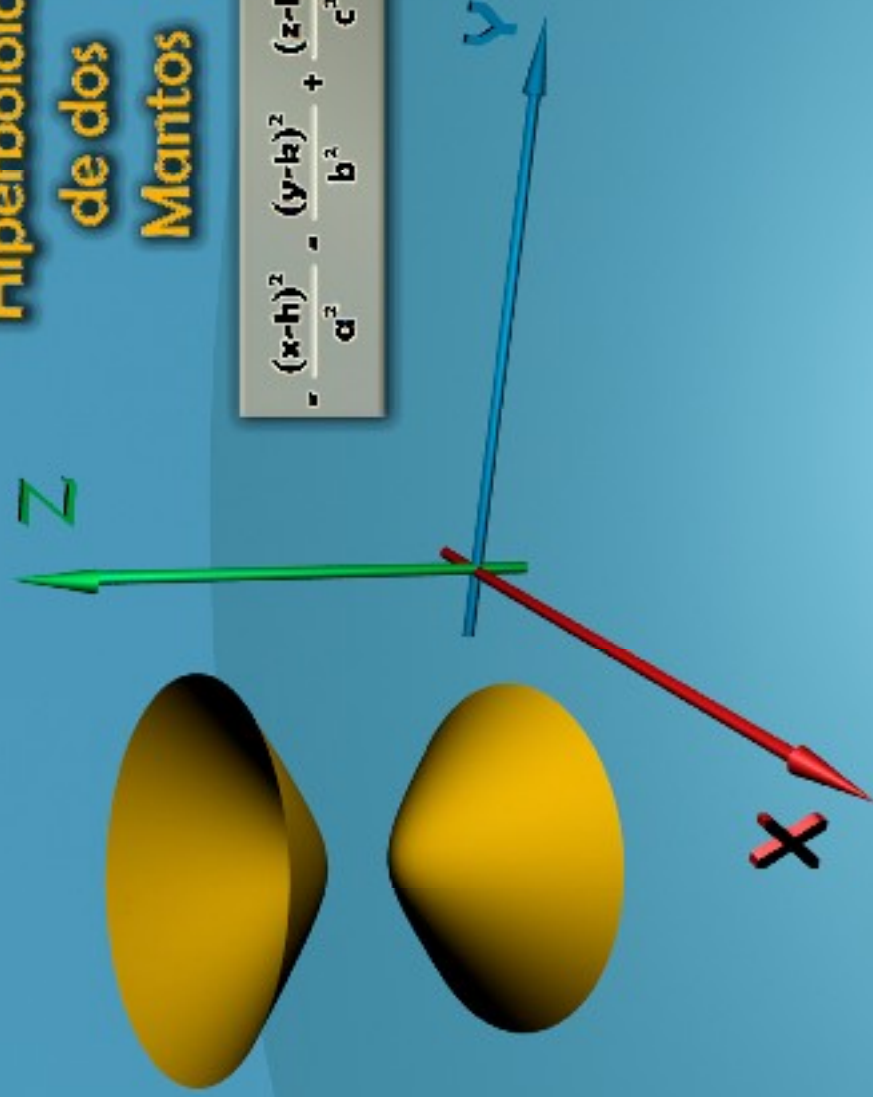
## Cono

$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} - \frac{(z-l)^2}{c^2} = 0$$



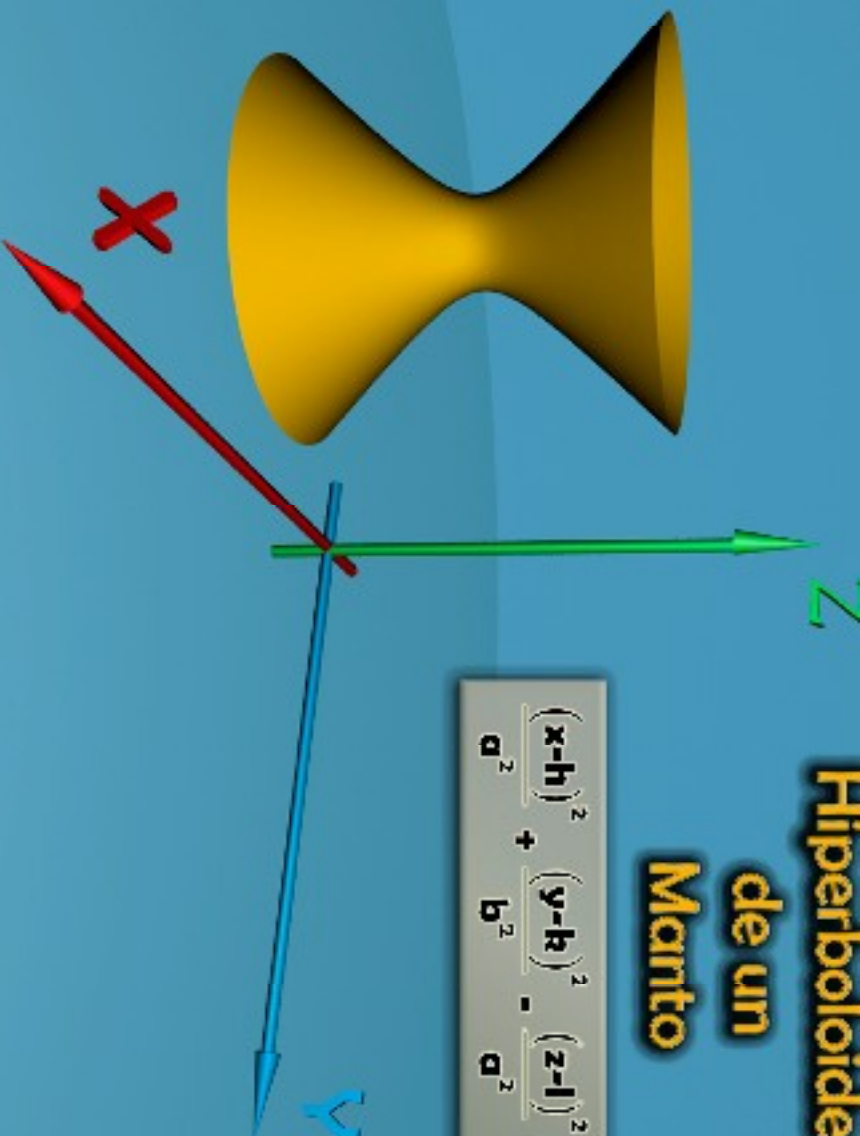
## Hiperboloide de dos Mantos

$$-\frac{(x-h)^2}{a^2} - \frac{(y-k)^2}{b^2} + \frac{(z-l)^2}{c^2} = 1$$



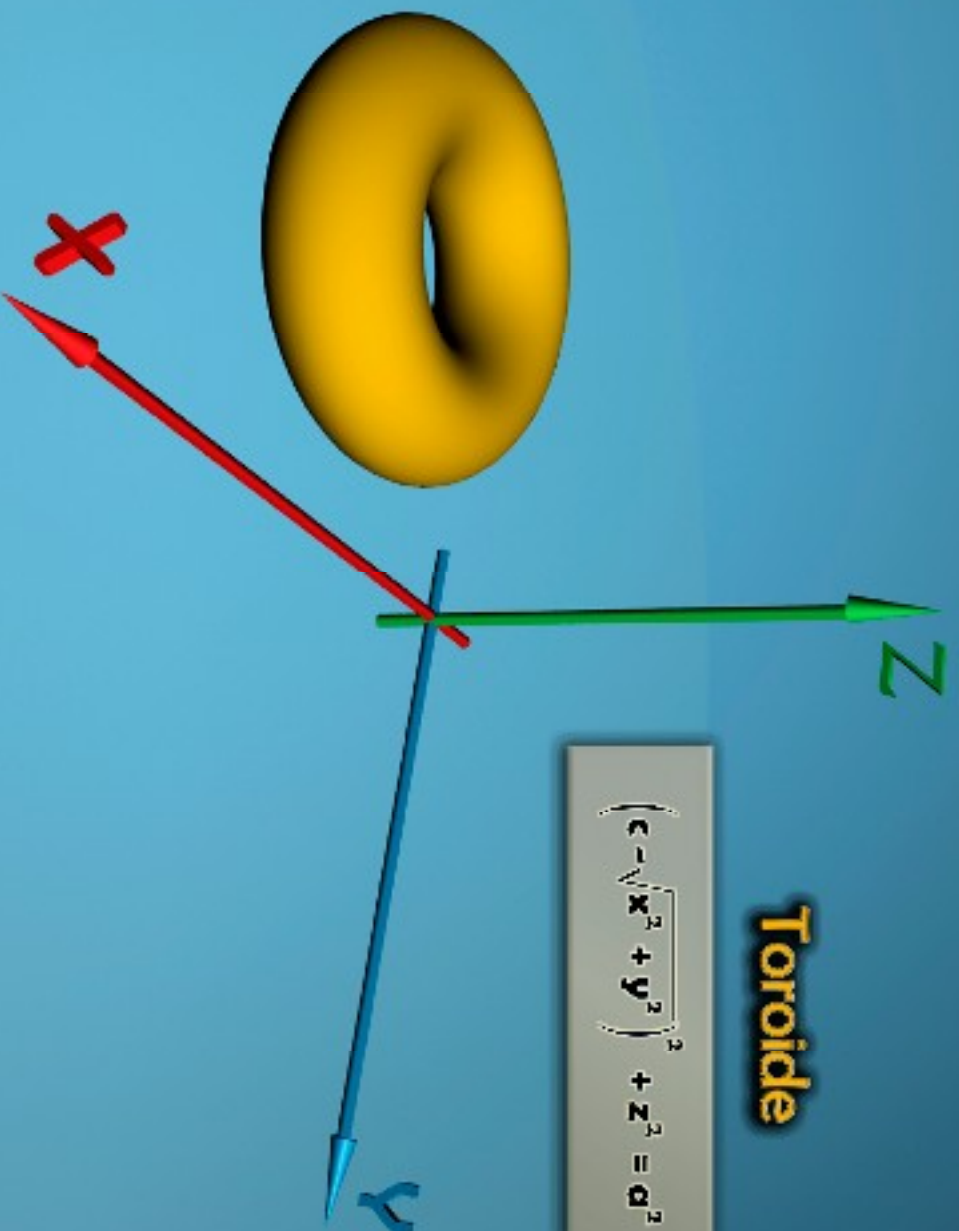
## Hiperboloide de un Manto

$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} - \frac{(z-l)^2}{c^2} = 1$$



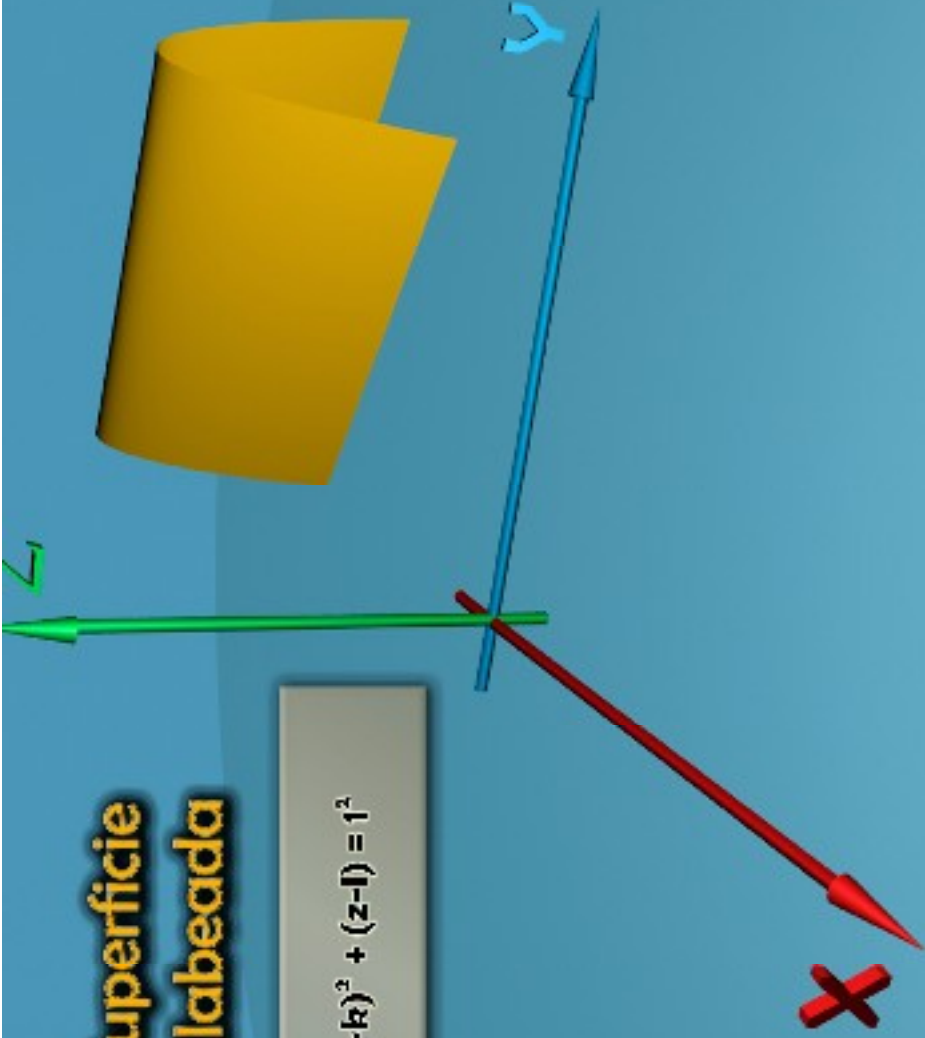
## Toroide

$$\left(c - \sqrt{x^2 + y^2}\right)^2 + z^2 = a^2$$



## Superficie Alabeada

$$(y-k)^2 + (z-l)^2 = r^2$$



## Elipsoide

$$\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} + \frac{(z-l)^2}{c^2} = 1$$

