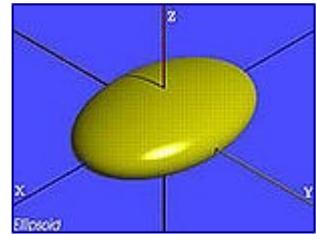


## Quadrliche non degeneri

### Ellissoide

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$



### Sferoide

(caso particolare di ellissoide)

$$\frac{x^2}{a^2} + \frac{y^2}{a^2} + \frac{z^2}{b^2} = 1$$

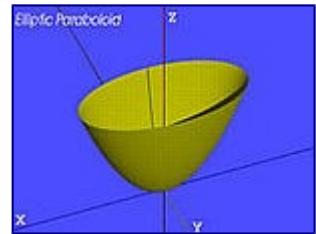
### Sfera

(caso particolare di sferoide)

$$\frac{x^2}{a^2} + \frac{y^2}{a^2} + \frac{z^2}{a^2} = 1$$

### Paraboloide ellittico

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - z = 0$$



### Paraboloide circolare

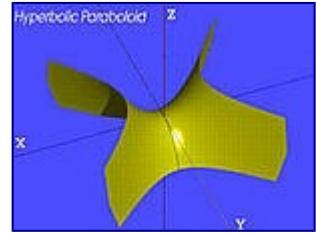
(caso particolare di paraboloide ellittico)

$$\frac{x^2}{a^2} + \frac{y^2}{a^2} - z = 0$$

### Paraboloide iperbolico

(superficie rigata)

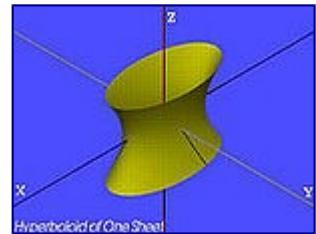
$$\frac{x^2}{a^2} - \frac{y^2}{b^2} - z = 0$$



### Iperboloide ad una falda

(iperboloide iperbolico)  
(superficie rigata)

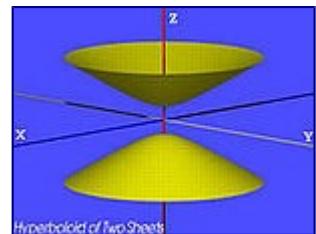
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$



### Iperboloide a due falde

(iperboloide ellittico)

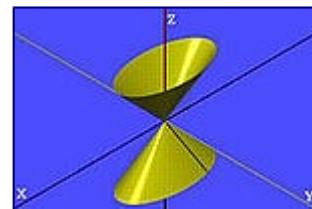
$$-\frac{x^2}{a^2} - \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$



## Quadrliche degeneri

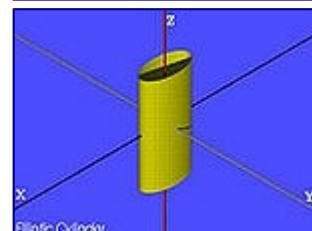
**Cono**  
(superficie rigata)

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 0$$



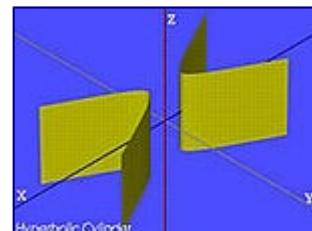
**Cilindro ellittico**  
(superficie rigata)

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$



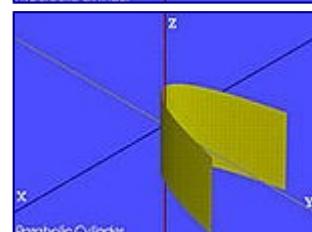
**Cilindro circolare**  
(caso particolare di cilindro ellittico)

$$\frac{x^2}{a^2} + \frac{y^2}{a^2} = 1$$



**Cilindro iperbolico**

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$



**Cilindro parabolico**

$$x^2 + 2ay = 0$$

