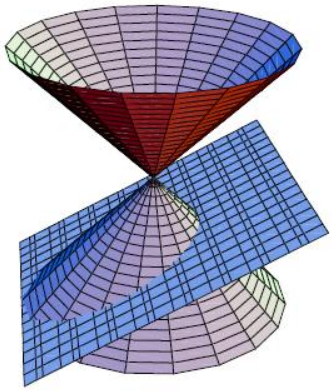
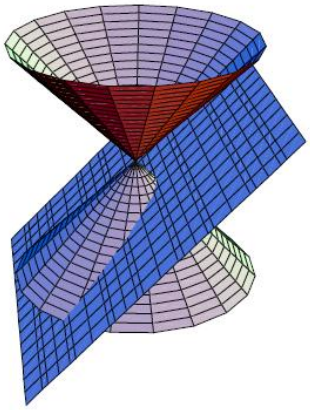
Cónicas

Elipse



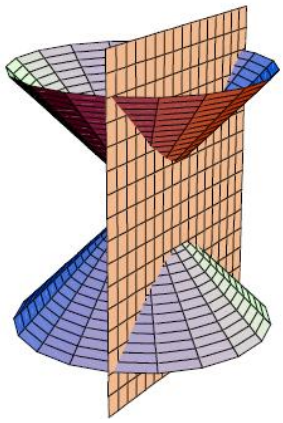
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

Parábola



$$y = 2px^2$$

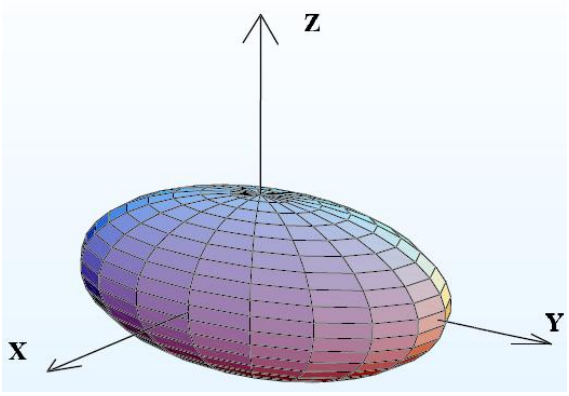
Hipérbole



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

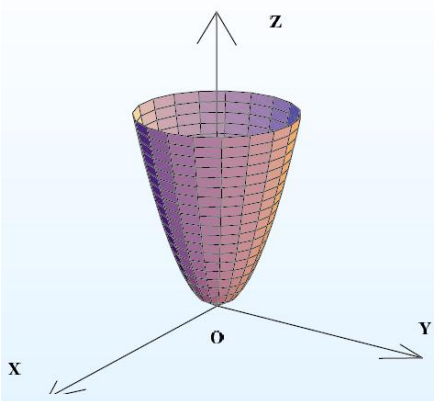
Quádricas

Elipsóide



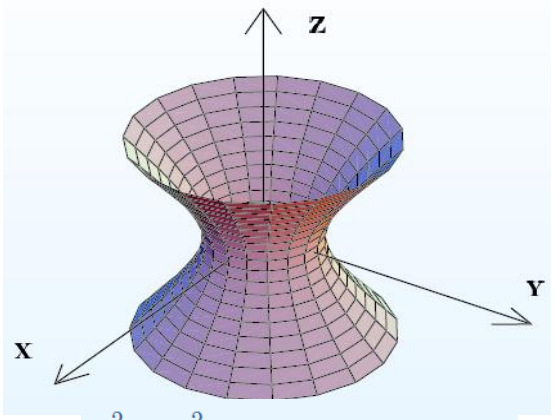
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

Parabolóide Elíptico



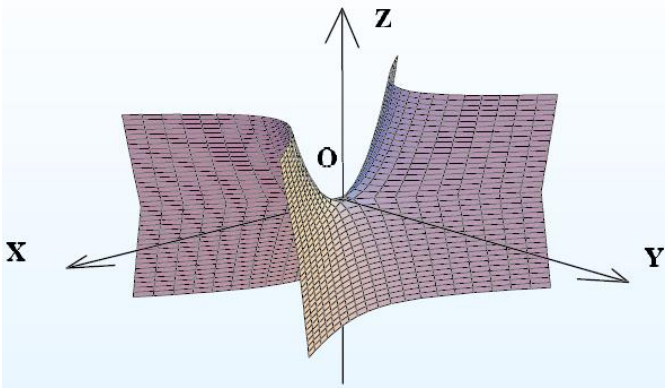
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 2pz\,, \quad \text{com } p > 0$$

Parabolóide Hiperbólico



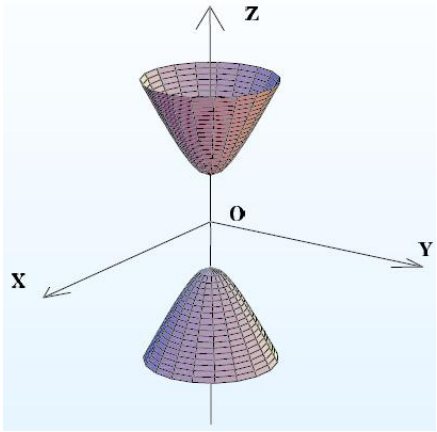
$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 2pz\,, \quad \text{com } p > 0$$

Hiperbolóide de uma folha



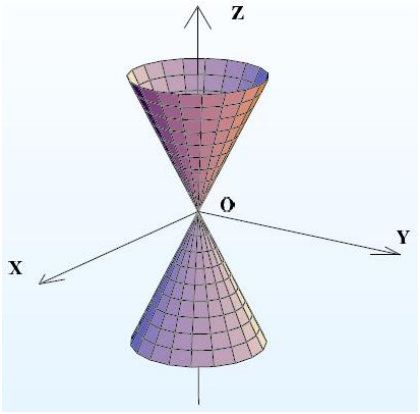
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$

Hiperbolóide de duas folhas



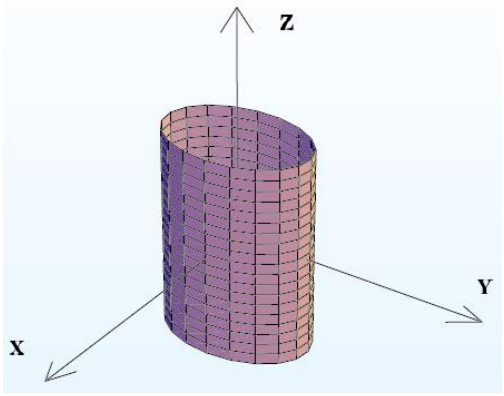
$$-\frac{x^2}{a^2} - \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

Cone elíptico



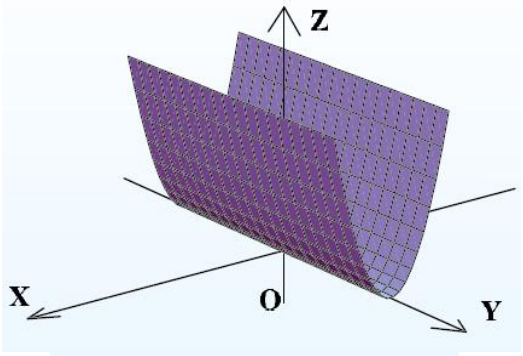
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 0$$

Cilindro Elíptico



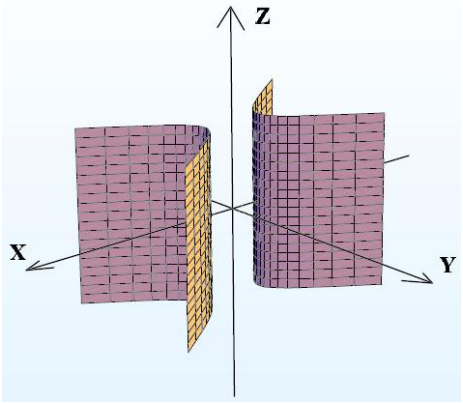
$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

Cilindro Parabólico



$$z = ax^2\,, \quad \text{com } a > 0$$

Cilindro Hiperbólico



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