Gallery of graphs

Ellipsoid: \[ \frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1 \]

Hyperboloid of one sheet: \[ \frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1 \]

Hyperboloid of two sheets: \[ \frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = -1 \]

Elliptic cone: \[ \frac{x^2}{a^2} + \frac{y^2}{b^2} = \frac{z^2}{c^2} \]
Elliptic paraboloid: \( z = ax^2 + by^2 \)

Hyperbolic paraboloid: \( z = by^2 - ax^2 \)