

$$r \in \left[-\frac{h}{2}, \frac{h}{2} \right]; \ln \cos \theta, \varphi \in \left[-\frac{h}{2}, \frac{h}{2} \right]; \ln \sin \theta, \varphi \in \left[-\frac{2h}{f}, \frac{2h}{f} \right]$$

$$\text{令 } z = \frac{h}{f}$$

$$r \in \left[-\frac{h}{2}, \frac{h}{2} \right]; \ln \cos \theta, \varphi \in \left[-\frac{h}{2}, \frac{h}{2} \right]; \ln \sin \theta, \varphi \in \left[-\frac{2h}{f}, \frac{2h}{f} \right]$$

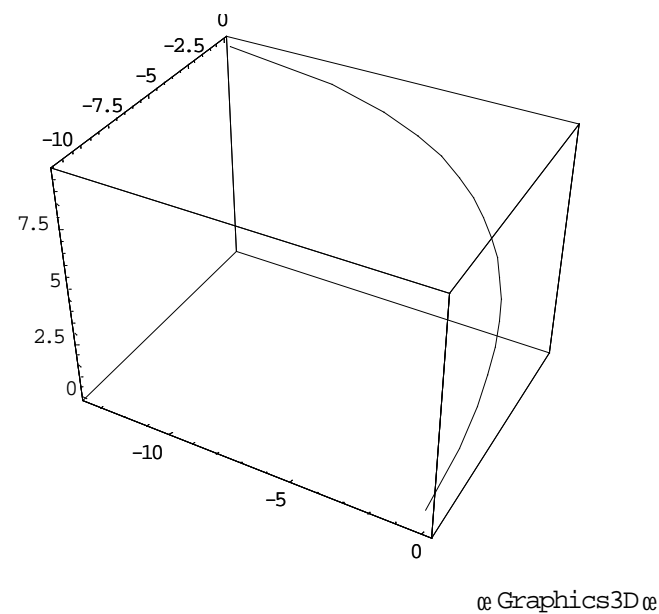
$$\text{給定 } h = 10, J = 0.1, \frac{f}{2} = N$$

$$\text{因 Log 不能有負值產生,故取 } J = 0.1, \frac{f}{2} = N$$

以 Mathematica 繪圖

ParametricPlot3D

$$\left\{ \frac{J}{f} \cos \theta, \frac{J}{f} \sin \theta, \frac{20}{f} N \right\}$$



$$r \in \left[\frac{h}{2}, \frac{h}{f} \right]; \ln \cos R \frac{zf}{2h} \leq \ln \sin R \frac{zf}{2h} \leq \frac{2h}{f} k$$

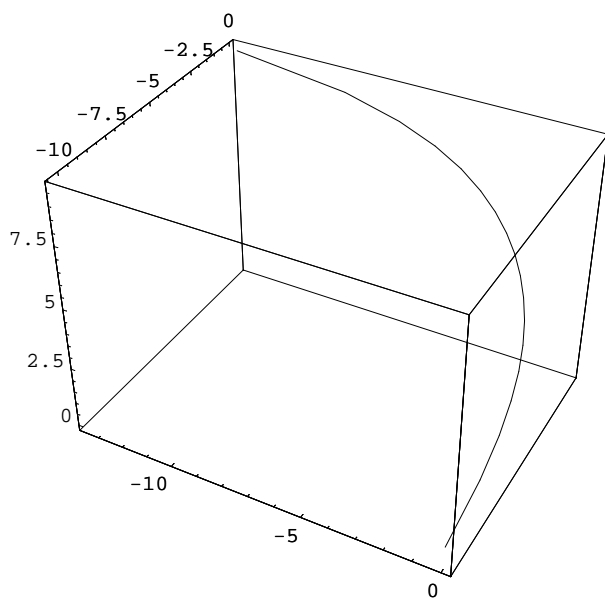
$$z \in \left[\frac{h}{2}, \frac{h}{f} \right]$$

$$r \in \left[\frac{h}{2}, \frac{h}{f} \right]; \ln \cos Q_{,U} \leq \ln \sin Q_{,U} \leq \frac{2h}{f} k$$

$$h \in [10, J_{,0.1}, \frac{f}{2}]$$

ParametricPlot3D

$$J \in \left[\frac{10}{2}, \frac{10}{f} \right]; \log Q_y, \cos Q_{,UU}, \left[\frac{10}{2}, \frac{10}{f} \right]; \log Q_y, \sin Q_{,UU}, \frac{20}{f} N, J_{,0.1}, \frac{f}{2} NV$$



Graphics3D