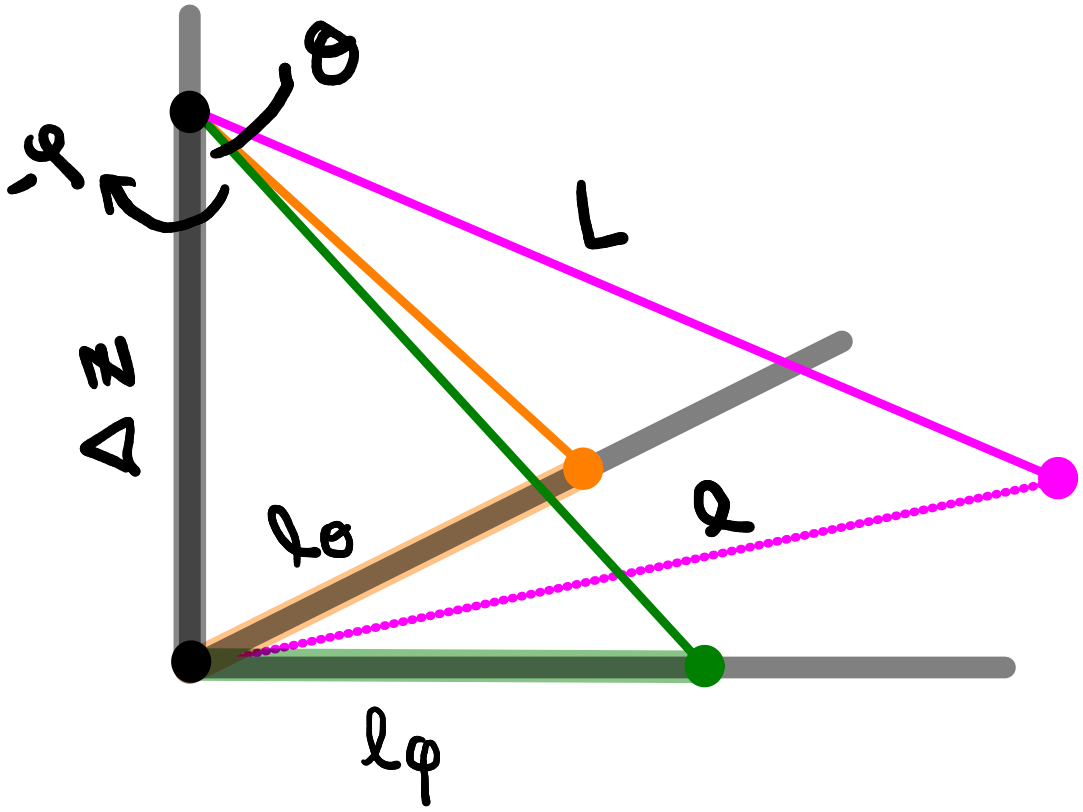

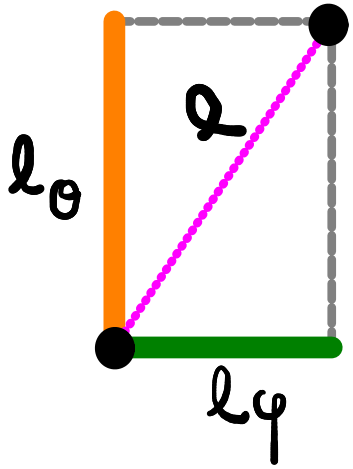

$$L = \sqrt{\Delta z^2 + \ell^2}$$

$$= \sqrt{\Delta z^2 + \Delta z^2 \tan^2\theta + \Delta z^2 \tan^2(-\varphi)}$$

$$= \Delta z \sqrt{1 + \tan^2\theta + \tan^2\varphi}$$

$$S = \frac{L}{f} = \frac{\Delta z}{f}\sqrt{1 + \tan^2\theta + \tan^2\varphi}$$