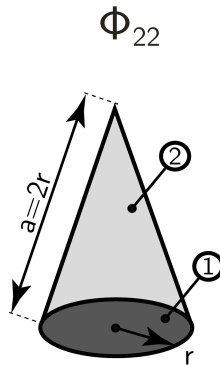


View Factor 53

Determine the view factor Φ_{22} :



A flat circle can never see itself and therefore:

$$\Phi_{11} = 0$$

From the summation rule ($\Phi_{11} + \Phi_{12} = 1$) one finds:

$$\Phi_{12} = 1$$

Using the reciprocity rule ($\Phi_{12}A_1 = \Phi_{21}A_2$):

$$\Phi_{21} = \Phi_{12} \frac{A_1}{A_2} = \frac{\pi r^2}{\pi r a} = \frac{1}{2}$$

From the summation rule ($\Phi_{21} + \Phi_{22} = 1$) it yields:

$$\Phi_{22} = 1 - \Phi_{21} = \frac{1}{2}$$