

$$I(t) = N_{\text{paths}} I_{\text{paths}}$$

$$\begin{aligned} N_{\text{paths}} &= dN_{\text{total}} \\ N_{\text{total}} &= \frac{\pi ab}{dx^2} \end{aligned}$$

$$t = \sqrt{(x+a)^2+z_s^2} + \sqrt{(x+a-x_d)^2+z_d^2}$$

$$t = \sqrt{x^2+b^2+z_s^2} + \sqrt{(x-x_d)^2+b^2+z_d^2}$$

$$x = x_d \frac{zs}{zs+zd}$$

$$\begin{aligned} I(t) &= \sum_{\text{chunks}} \left( \frac{z_s dx^2}{4\pi(x^2+y^2+z_s^2)^{\frac{3}{2}}} \frac{dx^2}{2\pi((x-x_d)^2+y^2+z_d^2)} \right) \\ &(0,0,z_s) \ (x_d,0,z_d) \ (x,0,0) \end{aligned}$$