FDP

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1 Part

$$\frac{r_1^2}{r_2^2} = \alpha$$

$$(x_t - x_{s1})^2 + (y_t - y_{t1})^2 + h_1^2 = \alpha\ ((x_t - x_{s2})^2 + (y_t - y_{s2})^2 + h_2^2)$$

$$x_t^2 - 2x_t x_1 + x_1^2 + y_t^2 + 2y_t y_1 + y_1^2 + h_0^2 - \alpha(x_t^2 + 2x_t x_2 - x_2^2 - y_t^2 + 2y_t y_2 - y_2^2 - h_0^2) = 0$$

$$(1-\alpha)x_t^2 - 2x_t(x_1 - \alpha x_2) + (1-\alpha)y_t^2 - 2y_t(y_1 - \alpha y_2) = -x_1^2 - y_1^2 + \alpha x_2^2 + \alpha y_2^2 + (\alpha - 1)h_0^2$$

$$(x_t - \frac{x_1 - \alpha x_2}{1-\alpha})^2 + (y_t - \frac{y_1 - \alpha y_2}{1-\alpha})^2 = (\frac{x_1 - \alpha x_2}{1-\alpha})^2 + (\frac{y_1 - \alpha y_2}{1-\alpha})^2 + \frac{-(x_1^2 + y_1^2) + \alpha(x_2^2 + y_2^2)}{1-\alpha} - h_0^2$$