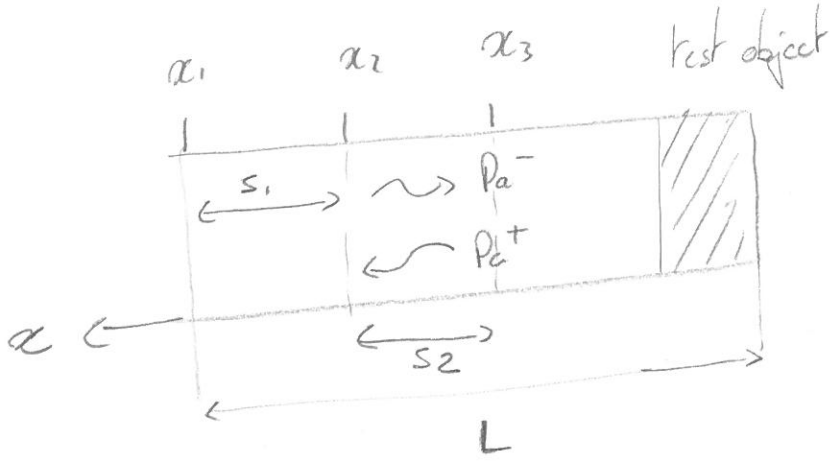
Kundt tube, reflection coefficient measurement



$$P_a = P_{a+} e^{-ikx} + P_a^- e^{ikx}$$

$$\begin{bmatrix} P_{a1} \\ P_{a2} \\ P_{a3} \end{bmatrix} = \underbrace{\begin{bmatrix} e^{-ikx_1} & e^{ikx_1} \\ e^{-ikx_2} & e^{ikx_2} \\ e^{-ikx_3} & e^{ikx_3} \end{bmatrix}}_{D} \begin{bmatrix} P_a^+ \\ P_a^- \end{bmatrix}$$

$$\begin{bmatrix} P_a^+ \\ P_a^- \end{bmatrix} = D^{-1} \begin{bmatrix} P_{a1} \\ P_{a2} \\ P_{a3} \end{bmatrix}$$

$$R = \frac{P_a^+}{P_a^-}$$