

Sample L^AT_EX document

Your Name 

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1 Introductory section

THIS is a sample document. The general solution of the Helmholtz equation in cylindrical coordinates (r, θ, z) is [1, Eq. (A-14)]

$$\tilde{p}(r, \theta, z) = p_0 [C_1 J_\ell(k_r r) + C_2 N_\ell(k_r r)] e^{i(\ell\theta + k_z z)}, \quad (1)$$

$$k = \sqrt{k_r^2 + k_z^2}, \quad (2)$$

where $p = \text{Im}(\tilde{p}e^{-i\omega t})$ is the solution of the wave equation for angular frequency ω , p_0 is the pressure amplitude, C_1 and C_2 are dimensionless constants, and J_ℓ and N_ℓ are the ℓ th order Bessel and Neumann functions, respectively. The Pythagorean theorem is

$$a^2 + b^2 = c^2. \quad (3)$$

Equation (3) is one of the most famous equations of mathematics. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

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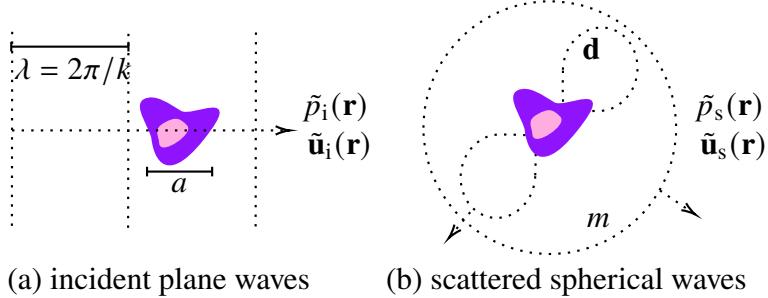


Figure 1: Incident and scattered waves

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References

¹D. T. Blackstock, *Fundamentals of Physical Acoustics* (Wiley, 2000).