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$$\partial_t^2 + \sum_{i=1}^n v_i^2 \partial_{x_i}^2 + m^2$$

$$u(x,t) = e^{i(k \cdot x - \omega t)}$$

if

$$-\frac{\omega^2}{v^2} + k^2 + m^2 = 0$$

so

$$\omega(k) := \pm v \sqrt{k^2 + m^2}$$

Current note has 0 direct children and 0 total descendants.

- [stem](#)
 - [subobjects of and functions on \$\mathbb{R}^n, S^n, \mathbb{C}^n\$ and its quotients \$\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n\$](#)
 - [equations](#)
 - $$\partial_t^2 + \sum_{i=1}^n v_i^2 \partial_{x_i}^2 + m^2$$

And it has 5 siblings.

- [stem](#)
 - [subobjects of and functions on \$\mathbb{R}^n, S^n, \mathbb{C}^n\$ and its quotients \$\Gamma \backslash \mathbb{R}^n, \Gamma \backslash \mathbb{C}^n\$](#)
 - [equations](#)
 - [Equations for functions on \$\mathbb{R}^2\$](#)
 - [Quasi-linear PDEs on \$\mathbb{R}^2\$](#)
 - $$\partial_t^2 + \sum_{i=1}^n v_i^2 \partial_{x_i}^2 + m^2$$
 - [First order PDEs in \$\mathbb{R}^n\$](#)
 - $$\partial_t^2 + \sum_{i=1}^n v_i^2 \partial_{x_i}^2$$