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EQUATION

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*Schrödinger equation  
non-operator form*

QUANTUM MECHANICS

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DEFINITION

FORMULA

*statistical interpretation of the wave function*

*Euler's formula*

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EQUATION

DEFINITION

*time-independent Schrödinger equation*

*Hamiltonian operator*

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$$i\hbar \frac{\partial \Psi}{\partial t} = -\frac{\hbar^2}{2m} \frac{\partial^2 \Psi}{\partial x^2} + V\Psi$$

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$$e^{i\theta} = \cos \theta + i \sin \theta$$

$$\int_a^b |\Psi(x, t)|^2 dx = \boxed{\text{probability of finding the particle between } a \text{ and } b, \text{ at time } t}$$

$$\hat{H} = -\frac{\hbar^2}{2m} \nabla^2 + V$$

The simplest way to write the time-independent Schrödinger equation is  $H\psi = E\psi$ , however, with the Hamiltonian operator expanded it becomes:

$$-\frac{\hbar^2}{2m} \frac{d^2 \psi}{dx^2} + V\psi = E\psi$$