Quantum Mechanics

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1-Dimensional Quantum Mechanics

2.1 The 1D Quantum Wave Equation

The **time-dependent Schrødinger equation** (TSDE) is a non-relativistic wave equation which describes the evolution of the wave function. It has the form

$$\text{(kinetic energy operator+potential energy operator)}\psi(x,t) = (totalenergyoperator)\psi(x,t) \tag{2.1}$$

In the position basis the momentum operator has the form

$$\hat{p} = -i\hbar\frac{\partial}{\partial x} \tag{2.2}$$

Bibliography