

## CHAPTER OVERVIEW

### 6: Time Evolution in Quantum Mechanics

Until now we used quantum mechanics to predict properties of atoms and nuclei. Since we were interested mostly in the equilibrium states of nuclei and in their energies, we only needed to look at a *time-independent* description of quantum-mechanical systems. To describe dynamical processes, such as radiation decays, scattering and nuclear reactions, we need to study how quantum mechanical systems evolve in time.

[6.1: Time-dependent Schrödinger Equation](#)

[6.2: Evolution of Wave-packets](#)

[6.3: Evolution of Operators and Expectation Values](#)

[6.4: Fermi's Golden Rule](#)

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