$H(t)_I |\psi_E\rangle = E_I |\psi_E\rangle$ $H(t)$ - time vary Hamiltonian

→ well defined instantaneous eigenstate for all t

→ not slowly, general superposition state: $|\psi(t)\rangle = \sum c_i |\psi_E(t)\rangle$

↳ if particle is slow enough, it cannot 'jump' between energy levels

↳ its motion is constrained to a single definite eigenvalue

↳ The final eigenvalue

$s(0) = 1 \quad s(t_0) = 0$

Adiabatic evolution: $H(t) = s(t) H_F + (1 - s(t)) H_I$

Linear $s(t) = \frac{t}{t_0}$

H_I H_F