What will happen if our system starts in one particular energy eigenstate at t=0, say $|E_2\rangle$, then we watch it for some time t – how do we write the state at time t?

- How will the probability of finding the state with energy E_2 (or any energy) after time t differ from at time t=0?
- How will the probabilities associated with *any* observations of this state after time t differ from at t=0?

What name might you give such an initial “pure” state to explain how it behaves with time?

If our initial state at t=0 is $a|E_1> + b|E_2>$, what will be our state after some time t?

- How will the probability of finding the state with energy E_2 (or any energy) after time t differ from at time t=0?
- How will the probabilities associated with *any* observations of this state after time t differ from at t=0?