Where do we go from here?

Two approaches pave the way:

Uncertainty principle

- In quantum mechanics one can only calculate a probability distribution for the result of a measurement.
- The Heisenberg uncertainty principle provides a way to use simple arguments and a simple inequality to draw important conclusions about quantum systems.

Schrödinger equation (next week)

- This differential equation describes the evolution of the quantum wave function, Ψ. Ψ itself has no uncertainty.
- $|\Psi|^2$ will then tell us the probabilities of obtaining various measurement results. That's where the uncertainty enters.