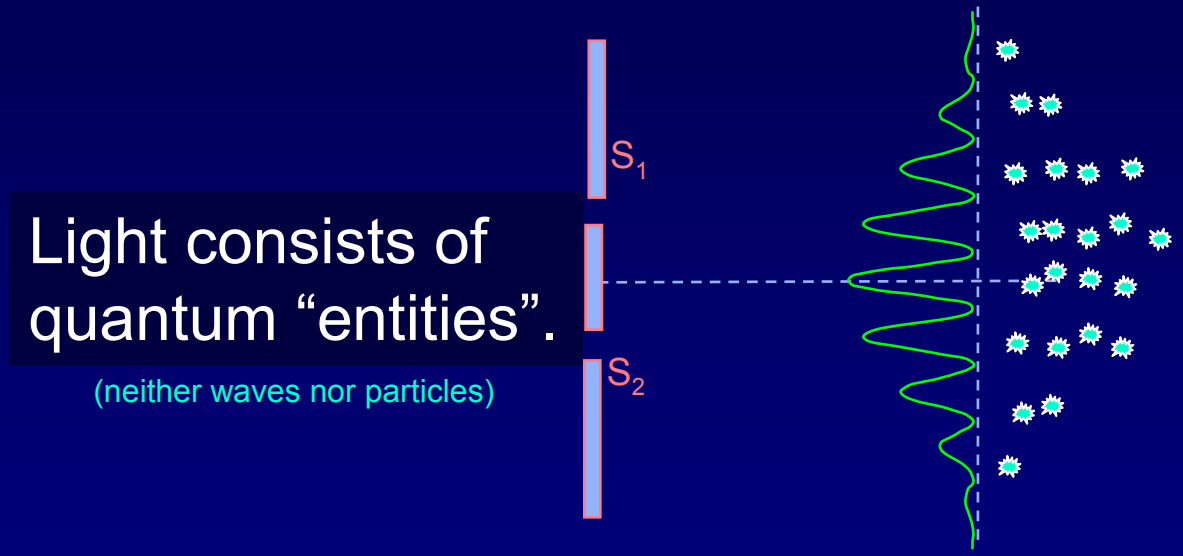
2-slits Revisited (3)

The quantum answer:

The intensity of the wave pattern describes the probability of arrival of quanta. The wave itself is a "probability amplitude", usually written as ψ.



Light consists of quantum "entities".

(neither waves nor particles)

One observes a random arrival of photons.

Randomness is intrinsic to QM.

Quantum mechanical entities are neither particles nor waves separately, but both simultaneously. Which properties you observe depends on what you measure.

Very large number of quanta $\Rightarrow$ classical wave pattern