(d) The Heisenberg uncertainty principle.

for cannonically conjugate variables such as position & linear momentum along the same axis, or energy & time, the uncertainties of the two variables is such that: the product is $\geq \frac{\hbar}{2}$, eg.

$$\Delta p_x \Delta x \geq \frac{\hbar}{2}, \text{ etc}$$

$$\Delta E \Delta t \geq \frac{\hbar}{2}.$$

(e) Particle transmission coefficient.

T = Transmission coefficient measures the probability that a particle incident on a barrier will emerge on the otherside of the barrier. Or,

$$T = \frac{(\Psi^* \Psi)_{\text{transmitted}}}{(\Psi^* \Psi)_{\text{incident}}}$$

(f) Sharp and fuzzy observables.

sharp observables are observables where repeated measurements performed on identically prepared systems, always yield the same value.

Fuzzy observables, such as position, are those for which repeated measurements yield different results. Fuzziness is reflected in the spread about an average value as measured by the standard deviation – ΔQ, which can be calculated from $\Delta Q = \sqrt{\langle Q^2\rangle - \langle Q\rangle^2}$.