What Quantum Mechanics Claims

Physics

The core departures from classical physics, stated plainly.

The claims that separate quantum from classical physics.

The claims

- Quantisation — energy comes in discrete units
- Superposition — states combine until measured
- Probability — outcomes are not determined
- Uncertainty — some pairs resist joint precision
- Indistinguishability — identical means identical

Consequences

- Atoms have discrete line spectra
- Interference for single particles
- **Tunnelling through barriers**
- Zero-point energy that never vanishes
- Exclusion gives matter its volume

These are not statements about ignorance. Experiment rules out local hidden variables that would restore classical determinism.