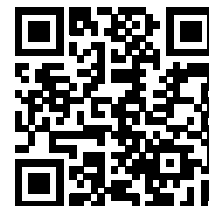


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Quantum Physics



Quantum physics, a branch of _____, delves into the fascinating world of subatomic particles. It reveals how these particles, smaller than _____, behave in ways that defy our usual understanding of physics. Unlike classical _____, which explains the motion of visible objects, quantum physics focuses on particles like _____, photons, and quarks. These particles can exist in multiple states at the same time, a _____ known as superposition. One of the most intriguing aspects of quantum physics is _____. When two particles become entangled, the state of one instantly influences the _____ of the other, regardless of distance. This contradicts _____'s theory that nothing can travel faster than light. Another key concept is _____, introduced by Werner Heisenberg. It states that we can never know both the position and momentum of a _____ with complete accuracy.

Quantum physics also has practical applications. It's the basis for technologies like _____, MRI machines, and even computers. Quantum _____, for example, use the principles of superposition and entanglement to perform calculations at incredible _____.

Furthermore, quantum physics challenges our understanding of _____. It suggests that at a fundamental level, nature is not deterministic but probabilistic. This means that _____ are not predetermined but are influenced by observation, a concept famously illustrated by Schrödinger's _____ thought experiment.

The study of quantum physics continues to evolve, with scientists exploring the possibility of _____, quantum encryption, and even the nature of the universe itself. It's a _____ that not only expands our knowledge but also challenges the very way we perceive the _____.

outcomes

electrons

state

speeds

phenomenon

teleportation

uncertainty

physics

lasers

entanglement

world

Einstein

science

particle

field

atoms

cat

reality

computers