

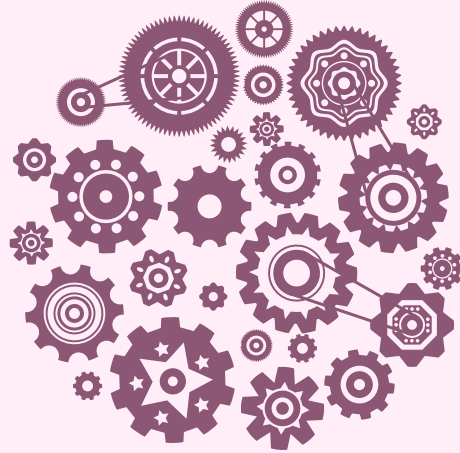


Xavier's Daily

→ Challenge yourself!

What invention lets you look right through a wall?

Answer
A window



→ Spectrum's Corner

Thought of the Day

I have not failed. I've just found 10,000 ways that won't work. -Thomas A. Edison

Word of the Day

Licentious : someone who is promiscuous

Example: The ruler's tyrannical and licentious behaviour.

QUANTUM MECHANICS

By Atiqua | Designed by Nivedita Nair

[XOL]

It's simply physics that explains how everything works: the best description we have of the nature of the particles that make up matter and the forces with which they interact.

Quantum physics underlies how atoms work, and so why chemistry and biology work as they do. You, me and the gatepost – at some level at least, we're all dancing to the quantum tune. If you want to explain how electrons move through a computer chip, how photons of light get turned to electrical current in a solar panel or amplify themselves in a laser, or even just how the sun keeps burning, you'll need to use quantum physics.

The difficulty – and, for physicists, the fun – starts here. To begin with, there's no single quantum theory. There's quantum mechanics, the basic mathematical framework that underpins it all, which was first developed in the 1920s by Niels Bohr, Werner Heisenberg, Erwin Schrödinger and others. It characterises simple things such as how the position or momentum of a single particle or group of few particles changes over time.

Three different quantum field theories deal with three of the four fundamental forces by which matter interacts: electromagnetism, which explains how atoms hold together; the strong nuclear force, which explains the stability of the nucleus at the heart of the atom; and the weak nuclear force, which explains why some atoms undergo radioactive decay.

But to understand how things work in the real world, quantum mechanics must be combined with other elements of physics – principally, Albert Einstein's special theory of relativity, which explains what happens when things move very fast – to create what are known as quantum field theories.

Site:- <https://www.newscientist.com>



DID YOU KNOW?

The Faster You Move the Heavier You Weigh.