What is a quantum dot?

A quantum dot is really small assembly of atoms (just a few thousand) around a few nanometers wide. The ‘quantum’ in its name comes from the fact that the electrons in these atoms have very little space to move around, so the crystal as a whole displays the quirky effects of quantum mechanics — effects that otherwise would be hard to ‘see’ without more sophisticated instruments. Quantum dots have also been called ‘artificial atoms’ because the dot as a whole behaves like an atom in some circumstances.

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