

23 March, 2pm
(Ingram Lecture
Theatre)

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**Dark Energy: might the Universe have
been playing tricks on us?**

After 14 billion years it would be reasonable to expect the expansion of the Universe to be slowing down. However, the Universe seems to have other ideas! During this talk you will learn about the mysterious substance, known as dark energy, that physicists think is causing the Universe to rip itself apart.

The 300-strong Dark Energy Survey (DES) collaboration is using sensitive observations of the night sky to understand the properties of dark energy. The observations are being made from a mountain top in Chile using one of the largest digital cameras ever made. In just one snap shot it can capture an area larger than 20 full moons.

DES is using four different methods to study dark energy: characteristic ripples left over from the Big Bang in the pattern of distant galaxies; mapping dark matter in the universe using the distortion of light by gravity; identifying exploding stars and using them to measure cosmic distances; searching for the heavy weights of the heavens (galaxy clusters) to determine how the Universe evolved.

However, the Universe might have been playing tricks on us. Could dark energy be the ultimate case of the Emperor's New Clothes?