



FREE PUBLIC LECTURE

The **School of Physics, Trinity College Dublin** is pleased to announce that

Prof. Robert Kirshner



Clowes' Professor of Science, Harvard-Smithsonian Center for Astrophysics

will give a lecture entitled:

Dark Energy and the Accelerating Universe: Einstein's Blunder undone!

in the Paccar Lecture Theatre, Science Gallery, at 7:30pm on Tuesday, 19th October.

All welcome. Reception afterwards.

Entry *via*. Pearse St/Science Gallery entrance

See:

<https://www.cfa.harvard.edu/~rkirshner/>

<http://www.tcd.ie/Physics/Astrophysics/>

<http://www.sciencegallery.ie/>

For directions, see:

<http://www.tcd.ie/Maps/map.php?q=science+gallery>

Abstract:

Dark Energy and the Accelerating Universe: Einstein's Blunder undone!

Ten years ago, astronomers found astonishing evidence that the expansion of the universe is speeding up. We did this by observing exploding stars half way across the observable universe. We attribute cosmic acceleration to a mysterious "dark energy" that speeds up cosmic expansion, but whose nature we do not fully understand. Curiously, in 1917, Einstein invented the "cosmological constant" as a kind of cosmic repulsion, to balance out gravity to produce a static universe. He abandoned it in the 1930s when the universe was found to be expanding. These new results show we need a form of "dark energy" that is very much like Einstein's cosmological constant to explain the universe we live in. In this strange new picture of the universe, dark energy makes up about 70% of the universe, dark matter about 25%, and only 5% is composed of the ordinary matter that makes up galaxies, stars, planets, and people.