

**New South Wales**

**Anglo-Australian Observatory**

**FT0992259** Dr CE Lidman

**Approved** **Venturing into the Cluster Desert**

**Project Title**

**2009 :** \$ 98,600

**2010 :** \$ 197,200

**2011 :** \$ 197,200

**2012 :** \$ 197,200

**2013 :** \$ 98,600

**Primary RFCD** 2401 ASTRONOMICAL SCIENCES

**Administering Organisation** Anglo-Australian Observatory

**Project Summary**

Fundamental questions that ask about the nature and the fate of the Universe are of interest not only to astronomers, but also to the general public. In particular, the realisation that the Universe is dominated by dark energy has sparked wide public interest. We still know very little about dark energy. Is it Einstein's famous cosmological constant or something more exotic, such as a new particle or even new physics? This proposal aims to build a sample of very distant galaxy clusters that can then be used to search for a very special type of supernova - the Type Ia Supernova, which can be used as a tool to learn about the properties of dark energy.