

# Seminar

Friday, 30th April 2010

11 am - Room 701

**Denis J Sullivan**

**Victoria University of Wellington**

## *The Physics of White Dwarf Stars*

White Dwarfs are compact stellar objects with very high mass densities. The fact that their observed luminosities are relatively low, given their measured surface temperatures, was established about 100 years ago and this was the first indication of their unusual properties. White dwarfs are slowly cooling stellar remnants, corresponding to the end product of the evolutionary changes in the vast majority of stars. In several distinct temperature regimes they are unstable to pulsation, and the consequent luminosity variations can be detected and exploited to probe otherwise hidden stellar structure and properties. The speaker has spent several decades (mostly using the Mt John one metre telescope) investigating pulsating white dwarfs using this technique (referred to as Asteroseismology). White dwarfs provide a unique cosmic laboratory for exploring a range of exotic physics, and the speaker will discuss a number of these topics.

*All Welcome*

### Contact Details

For further information phone 364 2404, or visit our website: [www.phys.canterbury.ac.nz](http://www.phys.canterbury.ac.nz)