**Department of Physics and Astronomy**
**College of Science**

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

# Seminar

## Friday 5 June, 2009

11 am - Room 701


## Cheng-Yang Lee and Dimitri Schritt

Physics and Astronomy Department

University of Canterbury


### *A theory of dark matter: The physics of Majorana and Elko spinors*


Evidence for the existence of vast quantities of a novel form of non-luminous matter has been steadily mounting since the mid 1930s. It is now well established (baring major changes to the theory of general relativity) that this matter, commonly referred to as dark matter, is four to five times more plentiful in our universe than luminous matter, and yet in spite of intense efforts over the last seventy years, there is as yet no well established theory for its description.

We here present the colourful tale that led to the discovery of Elko, a particle candidate for dark matter proposed in 2005 by Ahluwalia and Grumiller, and give a general overview of recent research on Elko that is taking place here at Canterbury and abroad.


***All Welcome***

**Contact Details**

For further information phone 364 2404, or visit our website: www.phys.canterbury.ac.nz