AUSTRALIAN INSTITUTE OF PHYSICS
TASMANIAN BRANCH

UTAS
School of
Mathematics and Physics

THE 2010 NOBEL PRIZE IN PHYSICS

A graphic portrait of graphene

Professor Bob Delbourgo
University of Tasmania

5 May 2011, 8 PM
Physics Lecture Theatre 1
Sandy Bay Campus, University of Tasmania

ABSTRACT:
Graphene is a perfect two-dimensional physical crystal which was recently isolated (2004) and led to the award of the Nobel Prize in Physics 2010. Graphene has remarkable properties which will be described in this lecture and the prospects for its future applications are truly staggering. The talk will be illustrated by its hexagonal symmetry characteristics which are rather beautiful, encapsulating its vibrational and conductive features.

SPEAKER PROFILE:
Bob Delbourgo obtained his PhD in 1963 at Imperial College, University of London, under the supervision of Professor Abdus Salam. Professor Salam was awarded the Nobel Prize in Physics in 1979 and he and Bob have co-authored 30 research publications. After receiving his PhD, Bob held various appointments at the University of Wisconsin, the International Centre of Theoretical Physics at Trieste and the Weizmann Institute in Rehovot. In 1966 he was appointed to a Lectureship at Imperial College where he remained for ten years, being appointed Reader in 1972. In 1976 he was awarded a DSc by the University of London and accepted the Chair of Theoretical Physics at the University of Tasmania. He held this position until his retirement in December 2000. During the period 1989-96 Professor Delbourgo was Dean of the Faculty of Science and subsequently Dean of Graduate Studies. In the mid 1990s he served as Chair of the National Committee for Physics of the Australian Academy of Science. He has published over 200 scientific papers and still continues his research at the University as an Honorary Research Associate. Professor Delbourgo is a Fellow of the Australian Academy of Science and was awarded its Thomas Ranken Lyle Medal in 1989. He is also a Fellow of the Australian Institute of Physics, which awarded him the Walter Boas Medal in 1988 and (together with the Institute of Physics in the UK) the prestigious 2002 Harrie Massey Medal and Prize for his contribution to quantized gauge-field theories and their symmetry properties.

Bob became interested in the present subject because it provides a nice example for teaching purposes of 2D solid state physics, different from the usual rectangular examples found in textbooks.

More information is available from tas.aip.org.au

ALL WELCOME