



**Australian Institute of Physics
NSW Branch (March Public Talk)**

“Terahertz Science and Technology”

**Professor Roger Lewis
University of Wollongong**

Tuesday 24th March 2009 @ 7.00PM

At the

Slade Lecture Theatre, School of Physics, University of Sydney

Public talk arranged by: The Australian Institute of Physics (NSW Branch)

Entrance is FREE

Summary of talk:

Beyond the rainbow lie “colours” imperceptible to the human eye. “Terahertz” or “T-rays” are a palette of these. T-rays offer a new way of viewing our world. Practical applications span secure communications, materials science, sustainability, medicine and agriculture. But T-rays are difficult to produce, manipulate and detect. These are the main obstacles to realising the full potential of the emergent technology based on terahertz-frequency electromagnetic radiation. The talk will cover fundamentals of terahertz science and technology, the challenges presented, and how these are being addressed by current research.





Brief Biography of the Speaker:

Roger Lewis is an active researcher in the area of terahertz science and technology. (The terahertz region of the electromagnetic spectrum falls between the infrared and microwaves.) He is leading CI in a 2007-2009 ARC International Linkage project, 'Advanced materials and structures for terahertz science and technology'.

In 2007 he was invited to speak on candidate terahertz emitters at international conferences in London, Chisinau and Canberra. He is a Fellow of the Australian Institute of Physics and a Fellow of the Royal Microscopical Society. Professor Lewis is also an accomplished teacher, as recognised by a Vice-Chancellor's Award for Outstanding Contribution to Teaching and Learning, The NSW Minister for Education and Training & The Australian College of Educators Quality Teaching Award, and a Carrick Citation.

He is a member of the American Association of Physics Teachers, the Australasian Association for Engineering Education, and the Australian College of Educators. Professor Lewis is also active in academic governance. He was Head of the School of Engineering Physics at the University of Wollongong 2002-2007 and is currently the Chair of the Faculty of Engineering Research Committee.

Detailed Schedule for Tuesday, 24th March 2009:

- 5.30-6.30 pm **LECTURE by Dr Rob Robinson.**
- 6:35-7.00 pm **REFRESHMENTS, Slade Lecture Theatre.**
- 7.00-8.00 pm **LECTURE by Prof Roger Lewis.**
- 8.15 pm **DINNER with the Speakers at Buon Gusto (Italian), 368 Abercrombie Street, Chippendale.**
E-mail Dr Fred Osman (fred_osman@exemail.com.au) if you will be able to join us for dinner.

Travel Directions:

- Train to Redfern station and walk to the **School of Physics**.
- Buses 422, 423, 426, 428, 448, and 450 from Circular Quay to City Road / King, or 412, 435, 438, 470, 483 etc. along Parramatta Road from Circular Quay.
- Drive and park in various parking lots. You will need to pay for parking (**\$6 flat-rate after 4 pm**) and display the ticket in your car. You may also find parking places on public roads outside the Uni.

Event sponsored by:



***The Australian Institute of Physics – NSW Branch
& The University of Sydney.***

