



FREE PUBLIC LECTURE

Australian Institute of Physics – NSW Branch

**THE 2005 NOBEL PRIZE FOR PHYSICS:
NEW LIGHT ON QUANTUM OPTICS**

Dr Stephen Bartlett

Thursday 10th August @ 6.15PM

The Eastern Avenue Lecture Theatre (Upstairs), University of
Sydney, near City Rd, University of Sydney

Summary of talk: We've all heard of the Nobel Prize for Physics, but how many of us actually know what it is awarded for? This yearly lecture, run by the University of Sydney's School of Physics and the Australian Institute of Physics enlists an expert in the field to explain the previous year's Nobel prize to us lay people.

The 2005 Nobel Prize in Physics was awarded to Roy Glauber, John Hall and Theodor Hansch for breakthroughs in the field of "quantum optics" - the quantum nature of light itself. This research allows us to understand interfering laser beams, and to design quantum clocks accurate enough to measure effects of Einstein's theory of relativity at walking speed. In this fully illustrated lecture Dr Bartlett will explain the theory behind the prize and what it means for modern physics and everyday life.





Brief Biography of the Speaker: Dr Stephen Bartlett leads the Quantum Information Theory research group in Physics at the University of Sydney. He received a Ph.D. in Physics from the University of Toronto in Canada in 2000, and then began researching quantum computation and quantum information theory in 2000 at Macquarie University in Sydney as a Macquarie University Research Fellow, and then as an ARC Postdoctoral Research Fellow at the University of Queensland in 2003. Stephen's current interests include quantum information theory, quantum computing, quantum cryptography, and the foundations of quantum physics.

Detailed Schedule for Thursday, 10 August 2006:

- **Light refreshments will be served outside the Eastern Avenue Lecture Theatre from 6.00PM.**
- **Lecture by Dr Stephen Bartlett will commence at 6.30PM sharp.**

RSVP Details:

There is no cost but bookings are essential. Please leave a message, with a name and number of people attending, by phone on 02-9351 3472 or by email on outreach@physics.usyd.edu.au

Travel Directions:

- Train to Redfern station and walk to the Eastern Avenue Lecture Theatre.
- 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.

