



Indian Academy of Sciences  
Bangalore



Indian National Science Academy  
New Delhi



The National Academy of Sciences, India  
Allahabad

## Science Academies' Refresher Course in Quantum Mechanics

*sponsored by*

**Indian Academy of Sciences, Bangalore  
Indian National Science Academy, New Delhi  
The National Academy of Sciences, India, Allahabad**

*in collaboration with*

**Department of Physics**  
Indian Institute of Technology Roorkee, Roorkee

28 November–12 December 2013

A Refresher Course in 'Quantum Mechanics' for college/university teachers will be held at the Physics Department of IIT Roorkee, Uttarakhand, from 28 November to 12 December 2013. The Course is aimed for college teachers engaged in teaching at the UG/PG level as well as those who use and need Quantum Mechanics in their research work. The Course will cover the basic and advanced topics of Quantum Mechanics, through lectures and tutorials.

**Course:** About two thirds of the course will cover the basic quantum mechanics at the level of standard M.Sc. course. This will include: Postulates of quantum mechanics, Schrödinger equation and its solutions for some simple problems, Role of symmetry, Perturbation theory, Scattering theory, Identical particles. In addition there will be three short modules on: Quantum technologies, Quantum computation and the Density functional theory.

**Resource persons:**

Prof. Arvind (IISER, Mohali), Dr Rajdeep Chatterji (IITR), Prof. Debjyoti Choudhary (Delhi University), Dr Saikat Ghosh (IIT Kanpur), Prof. D. G. Kanhere (Poona University), Prof. Deepak Kumar (RR Fellow, JNU), Dr B. K. Patra (IITR), Prof. Ishwar S. Tyagi (Emeritus Fellow, IITR)

**Course Director:** Prof. Deepak Kumar

**Course Convenor:** Prof. Ishwar Singh Tyagi

College/university teachers having at least a Master's degree in Physics are encouraged to apply. In order to participate, please send a short letter explaining your motivation to participate along with a brief curriculum vitae (including name, date of birth, gender, educational qualifications with marks obtained, teaching experience, typical courses taught, positions held, postal and e-mail addresses, phone numbers, etc.).

Teachers/research scholars who wish to participate should send their applications online using the following link: <http://web-iapps.ias.ac.in:8080/Refreshcourse/IITRR2013.jsp>

A copy of the application through the Head of the institution should be sent by speed post to: **Prof. I. S. Tyagi**, Department of Physics, IIT Roorkee, Uttarakhand. For any further query, please e-mail to: [ishwarsingh1@gmail.com](mailto:ishwarsingh1@gmail.com).

Last date for receipt of application: **15 September 2013**.