



Indian Academy of Sciences
Bangalore



Indian National Science Academy
New Delhi



The National Academy of Sciences,
India, Allahabad

Science Academies' Refresher Course on Quantum Mechanics 11–23 May 2015

Sponsored by

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

In collaboration with

Loyola College, Chennai 600 034, Tamil Nadu

A Refresher Course in 'Quantum Mechanics' for College/University teachers/research scholars will be held at the Post-Graduate and Research Department of Physics, Loyola College, Chennai, Tamil Nadu, during **11–23 May 2015**. The Course is primarily aimed at teachers involved in teaching quantum mechanics at the UG/PG level although a few seats will be available for research scholars in physics. The Course will cover the basic and advanced topics of quantum mechanics, through lectures and tutorials. College/University teachers having at least a Master's degree in physics are particularly encouraged to apply.

Topics: Most of the topics in a standard UG/PG level course syllabus will be covered. There will be four modules:

Module 1: History and Physical basis, Schrödinger equation, Free particles, Harmonic oscillator, H-atom; **Module 2:** Angular momentum theory and identical particles and spin; **Module 3:** Perturbation theory (degenerate and non-degenerate) and scattering theory; **Module 4:** Quantum theory of radiation and Relativistic quantum mechanics – Klein–Gordon equation and Dirac equation.

Resource persons:

Professors H. S. Mani (Chennai Mathematical Institute), G. Rajasekaran (The Institute of Mathematical Sciences and Chennai Mathematical Institute), Govind Krishnaswami (Chennai Mathematical Institute), S. V. M. Satyanarayana (Pondicherry Central University).

Course Director: Professor H. S. Mani

Course Coordinator: Mr C. Joseph Prabagar, Loyola College

Teachers/research scholars who wish to participate should send their applications online using the following link.

<http://web-japps.ias.ac.in:8080/Refreshcourse/RCQL.jsp>

A printed copy of the application approved by the Head of the institution should be sent by speed post to: **Prof. H. S. Mani**, CMI, H1 SIPCOT IT Park, Siruseri, Kelambakkam, Chennai 603 103, Tamil Nadu.

For any further query, please e-mail to: qmrc2015@gmail.com. Please note that participants have to attend the full duration of the Course. **Arrival – 10 May and Departure – 24 May 2015.**

Last date for receipt of applications: **15 March 2015.**