

SCIENCE ACADEMIES' REFRESHER COURSE IN CONDENSED MATTER AND STATISTICAL PHYSICS

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

in collaboration with
St. Thomas College, Palai, Kerala

28 February–13 March 2011

A Refresher Course in condensed matter physics and statistical physics, for College/University teachers, will be held at St. Thomas College, Palai, Kerala, during 28 February–13 March 2011. Beginning with a brief review of quantum mechanics and statistical mechanics, we plan lectures presenting an overview of solid state physics through the illustrative example of cuprates, followed by lectures on superconductivity, optoelectronics and device physics, concepts in phase transitions through the study of water, and the statistical physics of biological systems. These lectures are planned with the intention of starting with basic and well understood concepts, to develop more advanced topics, leading up to a presentation of topics of current research interest, in an integrated manner. The hope is that the participants in turn will be able to motivate their students about exciting new research and relate course material to topics of current research interest. College/university teachers having at least a master's degree in Statistics/Mathematics/Engineering are encouraged to apply.

Topics: Review of quantum mechanics and statistical mechanics; learning solid state physics through cuprates; superconductivity; optoelectronics and device physics; learning about phase transitions through water; statistical physics of biological matter.

Lecturers: R. Shankar (IMSc), Subodh Shenoy (HCU), G. Baskaran (IMSc), Srikanth Sastry (JNCASR), Vijay Shenoy (IISc), V. Venkataraman (IISc), Gautam Menon (IMSc), G. V. Shivashankar (NCBS/NUS).

Teachers/research scholars who wish to participate in this Refresher Course should submit their brief curriculum vitae (including name, date of birth, sex, educational qualification with marks obtained, teaching experience, courses taught, positions held, postal and e-mail addresses, phone numbers, etc.). The applications should be sent to

Professors G. Baskaran (IMSc)/Srikanth Sastry (JNCASR)

Course Directors

C/o G. Madhavan

Indian Academy of Sciences

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Selected teachers will be provided local hospitality and round trip shortest train fare (3-tier AC).

Last date for receipt of applications: **10 January 2011**