



## Science Academies' Refresher Course in Statistical Physics 9–23 December 2018



### Ramakrishna Mission Vivekananda University, Belur Math, Kolkata

A Refresher Course in Statistical Physics will be held at the Department of Physics, Ramakrishna Mission Vivekananda University (RKMVU), Belur Math, Kolkata, from 9 to 23 December 2018 for the benefit of faculty involved in teaching undergraduate and postgraduate courses. This course will address the transition from a one-particle description (as in classical mechanics) to a many-particle statistical description (as in statistical mechanics). An intermediate step involves dynamical system theory, which describes the evolution of a set of initial conditions under dynamics. Often, with the increase in the number of degrees of freedom, these lead to statistically similar behaviour, allowing a description through equilibrium statistical mechanics. In addition to lectures on these topics, there will be lectures on stochastic dynamics, nonequilibrium statistical mechanics and quantum statistical mechanics.

The course is sponsored by the Indian Academy of Sciences, Bengaluru, the Indian National Science Academy, New Delhi and The National Academy of Sciences, India, Allahabad. It will be directed by Prof. Mustansir Barma, TIFR, Hyderabad, F.A.Sc., F.N.A.Sc., F.N.A., and coordinated by Dr Shamik Gupta, Department of Physics, Ramakrishna Mission Vivekananda University. The topics and lecturers: Classical Mechanics: Prof. N. Mukunda (IISc, Bengaluru); Dynamical Systems: Prof. Soumitro Banerjee (IISER, Kolkata) and Dr Shamik Gupta (RKMVU, Belur Math); Stochastic Dynamics: Prof. Mustansir Barma (TIFR, Hyderabad); Classical Equilibrium Statistical Mechanics: Dr Shamik Gupta (RKMVU, Belur Math); Quantum Equilibrium Statistical Mechanics: Dr Arnab Sen (IACS, Kolkata); Nonequilibrium Statistical Mechanics: Prof. P. K. Mohanty (SINP, Kolkata).

Since 1999, more than 260 successful Refresher Courses have been organized throughout the country. It may be noted that UGC regulations include Refresher Courses in API scores for career advancement. Applications are invited from teachers with experience in teaching undergraduate and postgraduate courses in Engineering and Physics. Motivated B.Sc. and M.Sc. Physics students may also apply. There will be 25 outstation and 10 local participants. Selected outstation participants will be provided with travel assistance (limited to three-tier AC train fare), while all participants will be provided accommodation and local hospitality during the Course, in addition to the course material.

Interested applicants must submit their application ONLINE by clicking on the following link

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

A copy of the application form signed by the applicant should also be sent by post to **The Course Coordinator**, at the address given below. In case of teachers, the form must also be signed and stamped by the Head of the applicant's institution stating that leave will be sanctioned if the applicant is selected for the Course. A recommendation letter from a teacher is essential for student applicants. Scanned copies of the duly signed documents sent by e-mail will also be accepted.

Address for communication: **Dr Shamik Gupta**, Department of Physics, Ramakrishna Mission Vivekananda University, Belur Math, Howrah 711 202, West Bengal, e-mail: shamikg1@gmail.com, Phone: +91-33-2654 9999.

Last date for the receipt of applications: **15 September 2018**

Selected participants will be informed by: **5 October 2018**