### C. K. Majumdar Memorial Lecture

C. K. Majumdar Memorial Lectures are organized by the Satyendra Nath Bose National Centre for Basic Sciences, Kolkata as a tribute to Late Professor Chanchal Kumar Majumdar, the Founder-Director of the Centre

### Past Speakers

N Mukunda	Geometric Phases for Two and Three Level Quantum System	11 August 2001
B Sriram Shastry	Dynamical Symmetries, Accidental Degeneracies and Transport in many Body Systems	1 January 2003
Sudhanshu S Jha	Superconductivity in Solids: Misconceptions and Realities	12 August 2003
Guruswamy Rajasekaran	Recent Discoveries in Neutrino Physics	11 August 2004
Jainendra K. Jain	A new class of Fermions in Physics	2 August 2005
David Logan	Optics and Transport in heavy electron materials: theory meets experiments	11 December 2006
R Ramesh	Whither Oxide Electronics?	4 January 2008
Peter B Littlewood	New condensates of matter and light	5 January 2009
D Khomskii	Main problems and current challenges in systems with strongly correlated electrons	1 February 2011
Sir Michael Berry	Making Light of Mathematics	9 March 2012
Stuart Parkin	Spintronic and Lonitronic Computing Technologies	12 June 2015
Robert Ziff	Percolation in finite matching Lattices	24 January 2017

and Holes in Clusters







13<sup>th</sup>

# C. K. Majumdar Memorial Lecture

Title

Bose, Bosons & Bose Condensation

Speaker

Prof. T. V. Ramakrishnan

Dept. of Physics, Indian Institute of Science, Bangalore Dept. of Physics, Banaras Hindu University, Varanasi

Friday, 23<sup>rd</sup> February, at 4.00pm

Silver Jubilee Hall

S. N. Bose National Centre for Basic Sciences Kolkata - 700 106

#### **About the Speaker**



T. V. Ramakrishnan is Emeritus Professor of Physics, DAE Homi Bhabha Professor Banaras Hindu University, Varanasi and Distinguished Associate, Centre for Condensed Matter Theory, Department of Physics, Indian Institute of Science, Bangalore. His awards and honours include the

Shanti Swarup Bhatnagar Award for Physical Sciences (1982), the Third World Academy of Sciences Award in Physics (1990), the Padma Sri (2001) and the 2005 Trieste Science Prize. He is a Fellow of the Royal Society. Professor Ramakrishnan has made crucial contributions to our understanding of condensed many body systems. His pioneering work started two major areas of activity. These are: the liquid-solid transition as well as related phenomena in dense classical systems, and the onset of electron localization in disordered systems. He has also made many other significant contributions to condensed matter physics.

#### Abstract

It is a special pleasure to talk about the great S N Bose on the occasion of the celebration of his 125th year, in a lecture named after Professor C K Majumdar. The content of the talk reflects the speaker's perception of the title, based largely on information from the biography of Einstein by A Pais. The postulation of quantum statistics by Bose is a momentous event in modern physics. Its application to material particles, recognition of macroscopic occupation of a single state in materials consisting of bosons, realization that there are such systems in real life and exploration of their amazing properties, is a continuing saga. Some highlights will be mentioned, including the present excitement about the possibility of Bose metals, an uncondensed collection of effective bosons made of electron pairs.



S. N. Bose National Centre for Basic Sciences

Block-JD, Sector III, Salt Lake, Kolkata- 700 106

On behalf of the Centre I cordially invite you to the

13th

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to be delivered by

Prof. T. V. Ramakrishnan

Dept. of Physics, Indian Institute of Science, Bangalore Dept. of Physics, Banaras Hindu University, Varanasi

on

Bose, Bosons & Bose Condensation

at

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Prof. Samit Kumar Ray Director