Celebration of

127th

Birth Anniversary of Satyendra Nath Bose

and

24th

S.N Bose Memorial Lecture

| Programme |

10.30 am	Garlanding the bust of **Satyendra Nath Bose**
10.45 am	Opening of new Bose Archive
11.00am	High Tea
11.30am	Lecture by **Professor Debashis Mukherjee**, S.N. Bose Chair Professor, SNBNCBS Title of the Talk: **"Emergence of Modern Science in Colonial India: the German Connection"**
3.00pm	24th S.N. Bose Memorial Lecture- By **Professor Supriyo Datta** Thomas Duncan Distinguished Professor of Electrical and Computer Engineering, Purdue University, USA Title of the Talk: **"Mesoscopic Physics: A New Perspective on Transport"**
4.30 pm	Tea

S. N. BOSE NATIONAL CENTRE FOR BASIC SCIENCES

KOLKATA

Director

and

Staff and students of S.N. Bose National Centre for Basic Sciences request the pleasure of your company at the

127TH BIRTH ANNIVERSARY OF SATYENDRA NATH BOSE

and

24TH S.N BOSE MEMORIAL LECTURE

by

Professor Supriyo Datta

Thomas Duncan Distinguished professor of
Electrical and Computer Engineering, Purdue University.USA

Title:

Mesoscopic Physics: A New Perspective on Transport

on

| 1st January, 2020 |

Professor Samit Kumar Ray
Director

Venue :
Silver Jubilee Hall,
S. N. Bose National Centre for Basic Sciences
JD Block, Sector-III, Salt Lake City,
Kolkata - 700 106, India

Mesoscopic Physics: A New Perspective on Transport

by

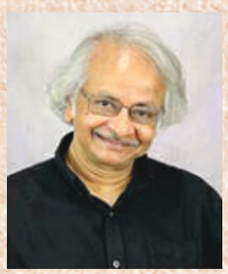
Professor Supriyo Datta

Abstract

Mesoscopic physics is generally regarded as a specialized topic dealing only with small conductors. I would like to argue that it goes beyond that: It leads to a new perspective on the general problem of transport that should be a part of undergraduate textbooks. Specifically, I will show how a mesoscopically inspired approach provides a transparent view of (1) conductivity, (2) thermoelectricity, (3) microscopic origin of resistance and (4) spin-charge conversion in materials with spin-momentum locking.

Reference:
S. Datta, "Lessons from Nanoelectronics: A. Basic Concepts, B. Quantum Transport," World Scientific Press, Second Edition (2017)

Professor Supriyo Datta: A Brief profile



Supriyo Datta is an Indian born American researcher . He has been called "one of the most original thinkers in the field of nanoscale electronics." He is currently the Thomas Duncan Distinguished professor at the School of Electrical Engineering at Purdue University. A recipient of the Frederick Emmons Terman Award from the American Society of Engineering Education in 1994, and the Presidential Young Investigator Award from the National Science Foundation in 1984, he is a Fellow of the Institute of Electrical and Electronics Engineers, the Institute of Physics and the American Physical Society. He was elected to the National Academy of Engineering in 2012.

Prof. Datta was the Director of NASA Institute for Nanoelectronics and Computing (INAC) from 2002-2007.

He is known for pioneering approach to quantum transport which has been widely adopted in the field of nanoelectronics. He is also known for innovative theoretical proposals that have inspired new fields of research including molecular thermoelectricity, negative capacitance devices, and spintronics.

Past Speakers of S.N. Bose Memorial Lecture

Leon Van Hove	1988
B M Udgaonkar	1990
H E Stanley	1991
C H Llewellyn Smith	1992
E C G Sudarshan	1994
V Singh	1995
B V Sreekantan	1996
Kazuo Fujikawa	1996
Sir Sam F Edwards	1996
CNR Rao	1999
R A Mashelkar	2000
Albert Libchaber	2001
Jayant V Narlikar	2002
Martin Blume	2003
SRS Varadhan	2004
Abhay Asthekar	2005
Rashid A Suyaev	2007
Ashoke Sen	2008
Wolfgang Ketterle	2009
Masashi Hayakawa	2010
T Ramasami	2010
Graham R Fleming	2011
Wolfgang Ketterle	2018

127TH BIRTH ANNIVERSARY OF SATYENDRA NATH BOSE

& 24TH S.N BOSE MEMORIAL LECTURE

| 1st January, 2020 |

सत्येन्द्र नाथ बसु राष्ट्रीय मौलिक विज्ञान केन्द्र

Satyendra Nath Bose National Centre for Basic Sciences