

# 84<sup>TH</sup> ACHARYA J. C. BOSE MEMORIAL LECTURE 30<sup>TH</sup> NOVEMBER, 2023







**OBSERVANCE OF** 

## **107<sup>TH</sup> FOUNDATION DAY**

#### AND

## 84<sup>TH</sup> ACHARYA J. C. BOSE MEMORIAL LECTURE

#### PROGRAMME

### 30<sup>th</sup> November, 2023

#### HOMAGE

12:00 - 13:30

... Floral Offerings at the Samadhi, Main Campus Garlanding the busts of Acharya J. C. Bose at Unified Academic Campus, Centenary Campus, Madhyamgram Campus, Falta Campus, Shyamnagar Campus, and Darjeeling Campus

#### **MAIN PROGRAMME**

15:00 - 15:05		Invocation
15:05 - 15:20		Welcome Address & Director's Report by <b>Prof. (Dr.) Uday Bandyopadhyay</b> Director, Bose Institute
15:20 - 15:30		Introduction to the Speaker by <b>Prof. Sanjay Kumar Ghosh, Bose Institute</b>
15:30 - 16:15		84 <sup>th</sup> Acharya J. C. Bose Memorial Lecture by <b>Prof. Dr. Paolo Giubellino</b>
16:15 - 16:25	/	Chairman's Address by Jörg Blaurock
16:25 - 16:30		Vote of Thanks by the Chairman of the Foundation Day Committee

#### NATIONAL ANTHEM





**OBSERVANCE OF** 

## **107<sup>TH</sup> FOUNDATION DAY**

Director and Staff Members of Bose Institute request the pleasure of your company at the

## 84<sup>TH</sup> ACHARYA J. C. BOSE MEMORIAL LECTURE

Speaker

## **PROF. DR. PAOLO GIUBELLINO**

Scientific Managing Director Facility for Antiproton and Ion Research in Europe GmbH (FAIR GmbH) GSI Helmholtzzentrum für Schwerionenforschung GmbH Darmstadt, Germany

**Titled** 

## INDIA AND BIG SCIENCE: A SUCCESS PATH FOR THE 21ST CENTURY

on

30<sup>th</sup> November, 2023 at 3.00 pm

#### JÖRG BLAUROCK

Technical Managing Director Facility for Antiproton and Ion Research in Europe GmbH (FAIR GmbH) GSI Helmholtzzentrum für Schwerionenforschung GmbH Darmstadt, Germany

will preside over the programme.

Venue: Unified Academic Campus Block EN, Plot No.-80, Sector-V Salt Lake City Kolkata - 700 091

#### Prof. (Dr.) Uday Bandyopadhyay

Director Bose Institute

"The true laboratory is the mind, where behind illusions we uncover the laws of truth." - Sir J. C. Bose







Prof. M.N. Saha: 1939Prof. Sukumar Sen: 1981Prof. S. S. Bhatnagar: 1940Prof. B.K. Bachhawat: 1982Dr. J. C. Ghosh: 1941Swami Lokeswarananda: 1983Sir Cyril S. Fox: 1943Prof. N.S. Subbarao: 1984Dr. K.P. Biswas: 1944Prof. R.C. Majumder: 1985Dr. P. Jarija: 1945Prof. C.N.R. Rao: 1986Dr. S.K. Mitra: 1946Prof. S. Chandrasekher: 1987Dr. J. N. Mukherjee: 1947Dr. A.P. Mitra: 1988Prof. K.O. Meha: 1949Dr. S. R. Ramachandran: 1990Dr. S.K. Banerji: 1950Prof. P.N. Tandon: 1991Dr. S.K. Banerji: 1950Prof. V. Rao: 1993Dr. N.C. Mahalanobis: 1951Dr. S.Z. Qasim: 1994Dr. N.K. Bose: 1954Dr. R.A. Mashelkar: 1999Dr. A.C. Ukil: 1955Prof. N.K. Ganguly: 1998Dr. D.N. Wadia: 1955Prof. N.K. Ganguly: 1998Dr. D.N. Wadia: 1955Prof. N.K. Ganguly: 1999Dr. S. Radhakrishnan: 1955Prof. N.K. Ganguly: 1998Dr. D. N. Kanachadran: 1964Prof. N.S. Ganguly: 1998Dr. D. Ramachandran: 1964Prof. N.S. Ganguly: 1998Dr. D. Ramachandran: 1955Prof. N.K. Ganguly: 1998Dr. S. Radhakrishnan: 1956Prof. N.K. Ganguly: 1998Dr. D. Ramachandran: 1965Prof. N.S. Ganguly: 2000Dr. B. Nag Chowd	Rabindra Nath Tagore	•	1938	Prof. Niharranjan Ray	:	1980
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**OBSERVANCE OF** 

## **107<sup>TH</sup> FOUNDATION DAY**

AND

## 84<sup>TH</sup> ACHARYA J. C. BOSE MEMORIAL LECTURE

#### ABSTRACT

#### India and Big Science: A Success Path for the 21st Century

Science in this century is driven by large international infrastructures, which are realized by groups of nations pooling their know-how and resources. In an increasingly interdependent world, India's scientific community has embarked on a remarkable journey that transcends borders and demonstrates its commitment to unraveling the mysteries of the universe and develop cutting-edge technologies. India is playing a leading role on the global stage and is a key player in a number of international mega-science projects. In my lecture I will address the reasons for Big Science, the transformative potential of international collaboration, the unique educational opportunities it creates and the limitless horizons of scientific exploration on a global scale.

A special attention will be devoted to the current Renaissance of Nuclear Physics, and its role in society and in our understanding of the Universe.





#### **ABOUT THE SPEAKER**



#### **PROF. DR. PAOLO GIUBELLINO**

Scientific Managing Director Facility for Antiproton and Ion Research in Europe GmbH (FAIR GmbH) GSI Helmholtzzentrum für Schwerionenforschung GmbH Darmstadt, Germany

Paolo Giubellino is an accomplished experimental physicist, renowned for his work in High-Energy Nuclear Collisions, particularly focused on recreating the conditions akin to the early moments of the universe, featuring ultra-dense and hot matter.

His academic journey commenced with studies at Turin University and the University of California in Santa Cruz, providing the foundation for his involvement in heavy-ion experiments at CERN in Switzerland.

Since the early 1990s, Dr. Giubellino has held several senior positions at CERN's ALICE experiment. Within the ALICE Collaboration, comprising 1600 scientists from 169 institutions across 42 countries, he held significant roles, eventually to be elected to lead the collaboration from January 1st, 2011.

Paolo Giubellino's scientific contributions began at the CERN SPS and have continued as a stalwart presence in the Large Hadron Collider program. His leadership within the ALICE Collaboration led to the approval and ongoing construction of an Upgrade proposal for the ALICE experiment, spanning 2020 to 2028.

In addition to his pioneering work in nuclear physics, he has made remarkable strides in the development of particle detection technologies, serving as a member of the Instrumentation Panel of the International Committee for Future Accelerators (ICFA) since August 2000.

Beyond his scientific contributions, Paolo Giubellino He has served in many scientific committees and advisory panels in China, the Czech Republic, France, Germany, Italy, Korea, Japan, Mexico, Russia, South Africa and Spain. His commitment to international collaboration has led to his promotion and leadership in programs funded by the European Union, NATO, and various bilateral agreements. He also participates in the International Advisory Committees of numerous scientific conferences.

Since January 2017, Paolo Giubellino has assumed the role of Joint Scientific Managing Director at GSI Helmholtzzentrum für Schwerionenforschung GmbH and Facility for Antiproton and Ion Research GmbH, where his research remains steadfastly focused on high-energy heavy ion collisions and the matter they produce. GSI is one of the world renown Nuclear Physics laboratories, home of many scientific discoveries, including six of the elements of the periodic table. FAIR is a new international laboratory currently under construction, one of the largest new scientific facilities in the world. FAIR is recognized as one of the leading European scientific infrastructures.

Throughout his career, Paolo Giubellino has garnered numerous honors, including two Honiris Causa Doctorates, the Lise Meitner Prize of the European Physical Society (2014) and the Enrico Fermi Prize, the highest honor from the Italian Physical Society (2013). In 2011, Giubellino was appointed spokesperson of ALICE. In 2012, he was honored with the title of "Commendatore della Repubblica Italiana" by the Italian president for his scientific contributions. In 2016, he was elected into the Academia Europaea for his exceptional scientific achievements.