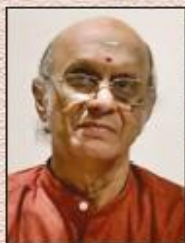


About the speaker



Dr. Swaminathan Kailas, a graduate of Presidency College, Chennai joined Nuclear Physics Division, BARC through the Training school. He was awarded Ph.D. by Mumbai University. He was a post-doc at Indiana University (1978-80) and a research associate at University of Washington, Seattle (1988-89).

His notable contributions are: i) Systematic measurement of proton reaction cross sections for medium weight nuclei and determination of the proton - nucleus mean field at energies of interest to astrophysics, (ii) Detailed investigation of the giant resonances using the technique of inelastic scattering of 100 MeV/A protons and helions, (iii) Comprehensive measurements and analysis of heavy-ion induced fusion - fission reactions and demonstrating the role of reaction dynamics and nuclear structure of the interacting nuclei. He was awarded the Sir C. V. Raman medal in Physical Sciences by the Indian Science Congress. He is an elected Fellow of IASc and INSA. He was the President of IPA and Editor, Physics News. He has delivered the Prof. S. P. Pandya memorial lecture organized by the IPA and the Prof. S. D. Chatterjee endowment lecture organized by the IPS. His present affiliation is INSA Senior Scientist at University of Mumbai-Department of Atomic Energy, Centre for Excellence in Basic Sciences.

Saha Institute of Nuclear Physics Alumni Association
cordially invites you to attend the

3rd
Professor Manoj Kanti Banerjee
Memorial Lecture

on

Nuclear Physics, Spin-off Technologies and Impact on Society

by

Professor Swaminathan Kailas

INSA Senior Scientist
UM-DAE Centre for Excellence in Basic Sciences
Mumbai

Venue

Meghnad Saha Auditorium
Saha Institute of Nuclear Physics, Kolkata

at 3-00 pm

September 9, 2022

Organized by

Saha Institute of Nuclear Physics Alumni Association (SINPAA)
SINP, Kolkata



Professor Manoj Kanti Banerjee
Born : 25 May 1930 ; Died : 18 February, 2006

Manoj Kanti Banerjee was a brilliant theoretical nuclear physicist, a great teacher and an intellectual leader. After graduating from Patna University, he completed his Master's degree in physics in 1951 from University of Calcutta with a blazing track record. Soon after in 1952, he was recruited as a lecturer by Professor M. N. Saha in the newly founded Institute of Nuclear Physics which later became the Saha Institute of Nuclear Physics. Few trained nuclear physicists were working in the country in those early days. Young Manoj learned the subject all by himself and taught the same in the just-founded Post-M.Sc. course, the only such course in India then at the Institute of Nuclear Physics. Within a few years, he established himself as one of the finest nuclear physicists. With students and like-minded colleagues to whom he appealed, he created a vibrant research group at the Saha Institute on nuclear many-body problem based on the Brueckner theory, nuclear reactions and nuclear structure. It was easily the finest nuclear theory group in India and comparable to the best anywhere.

An exceptional young researcher, restless to seek the unknown, Manoj left India in 1966 to join the University of Maryland at College Park as a Professor in Physics. His interest moved to meson-nucleon interaction; his lasting contribution in that field lies in developing the Chiral Confining Model for the nucleon which dynamically generates the confining bag. Professor Manoj Banerjee was awarded the senior Alexander Von Humboldt prize for his contribution to physics. He was a fellow of the American Physical Society, a fellow of the Indian Academy of Sciences and was in the editorial board of Physics Letters. He was also a Visiting Professor at the University of Manchester, England and other reputed institutions elsewhere. He retired from the University of Maryland in 2001 but continued his association with the University as a Senior Research Scientist and Professor Emeritus. He often visited India and was always in touch with the Saha Institute. In 1981, Manoj Banerjee was requested to return to the Institute as Director, but he declined the offer as he did not want to shoulder excessive administrative burden at the cost of serious scientific research. For him, administrative power mattered little. He was a true seeker. His friend and colleague Jim Griffin said of him, "for him, new truth was the ultimate treasure, he was deeply, even intrinsically a scholar".

Nuclear Physics, Spin-off Technologies and Impact on Society

Abstract

Nuclear science and related technologies have profound influence on society. While trying to unravel the mysteries of nature through research in frontier areas, there is an underlying desire to use this knowledge for people at large. Nuclear Physics has progressed in three directions: one is the study of nuclear collisions at very high energy densities and observation of phase changes; The second is the investigation of nuclei at extremes of temperature, spin and isospin and look for new symmetries. The third is to extend the search for nuclei far beyond the line of stability and super heavy nuclei. A number of technologies got developed in pursuing nuclear physics research and a number of spin-offs have also resulted from this research. The nuclear physics applications encompass diverse fields of social relevance and include energy, health care, industry, agriculture and security. A brief overview of the excitement in nuclear physics research, the spin-off technologies and the impact on society will be provided.

Programme

Welcome Address
Professor Polash Banerjee
President, SINPAA

Address by Guest of Honour
Professor Gautam Bhattacharya
Director, SINP

M K Banerjee Memorial Lecture
Professor Swaminathan Kailas

Presentation of Memento
President, SINPAA

Vote of Thanks
Professor Kamal Kumar Bardhan
Secretary, SINPAA