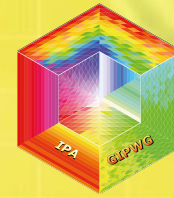
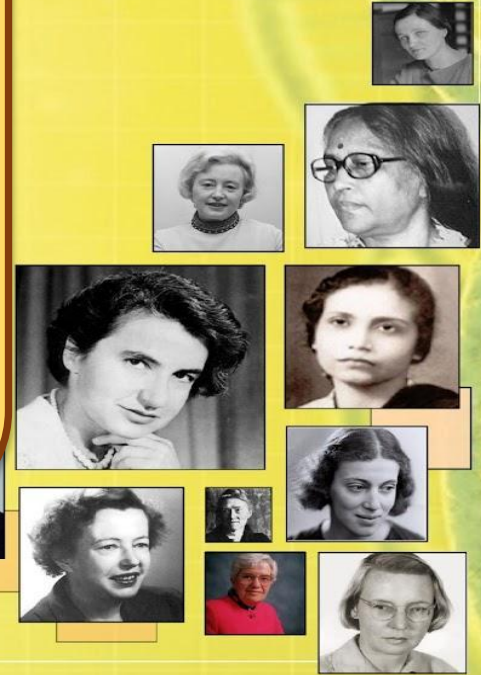


PAVINARI (पविनारी)

Lecture Series on Women Physicists



The **Gender in Physics Working Group (GIPWG)** of the Indian Physics Association (IPA) aims at co-ordinating national efforts towards gender parity in the Indian physics profession. As a part of this effort, the GIPWG has initiated **PAVINARI (पविनारी)**, a **public lecture series on eminent women physicists**, which intends to cherish the fantastic work of women scientists and to motivate the younger generations.



PAVINARI (पविनारी) Lecture 1

Lecture Series on Women Physicists



Physicist Exemplar and Pioneer Climate Scientist: Glimpses into the Life of Anna Mani



Anna Mani was an Indian physicist exemplar who was born over a century ago. She grew to become India's pioneer climate scientist, who took the country's Meteorological Department to new heights with her outstanding scientific leadership. By all accounts she was the quintessential scientist from a very young age. Her life was her work. Her accomplishments were pathbreaking, against all odds, and her life has now also been encapsulated in a comic book for children. The talk will give some glimpses into her life and work.

Jointly organised by IPA GIPWG and Ashoka University, December 10, 2022

YouTube: <https://youtu.be/IQWneftuF2Y>

Speaker: Prof. Prajval Shastri, Emeritus Scientist, RRI



Prajval Shastri specialises in the physics of giant black holes. She is deeply concerned about the inequities in the sciences and attempts to bring an intersectional lens to the endeavours to mitigate them. She is founder and past chair of the GIPWG of the IPA, and past member of the Working Group for Gender Equity of the Astronomical Society of India. She is Vice-chair of the Women in Physics Working Group of the IUPAP and Vice-Chair of the Executive Committee for the International Year of Basic Sciences for Sustainable Development. Her published writings cover gender inequity as well as science and society.



PAVINARI (पविनारी) Lecture 2

Lecture Series on Women Physicists



Harvard's Computers: The legacy of the Stellar Women!

In the late 1800s, a group of women working with Edward Charles Pickering at the Harvard College Observatory, did painstaking work with astronomical observations and made phenomenal discoveries in the field of stellar astrophysics. Notable among those discoveries involve the spectral classification of stars, the discovery of Cepheid variables and even the understanding of stellar spectra. Despite such pioneering work in astronomy, these women were almost unpaid and were treated as “subordinates” to Pickering. The phrase that was sometimes used to refer the team was “Pickering’s Harem,” a manifestation of the lack of respect and recognition of these talented women astronomers. In this talk, I shall touch upon the lives of Henrietta Leavitt, Annie Jump Canon and Williamina Fleming and discuss their work that provided new insights in our understanding of the Universe

Jointly organised by IPA GIPWG and Presidency University, Kolkata

January 10, 2023, YouTube: <https://youtu.be/nNLqQGWu>

Speaker: Dr. Suchetana Chatterjee, Presidency University, Kolkata



Suchetana Chatterjee is currently an assistant professor at the School of Astrophysics at Presidency University. Her research interests focus on understanding the cosmological evolution of supermassive black holes using theoretical and observational techniques. She was the recipient of the 2020 IAPT Dinabandhu Sahu Distinguished Teacher award and was a founding member of the gender in physics working group of the Indian Physics Association. She is currently serving the gender panel of Astronomical Society of India and is an active proponent of equity and diversity in physics and beyond.



PAVINARI (पविनारी) Lecture 3

Lecture Series on Women Physicists



Promoting physics across borders : some women who opened doors for others

We examine the contributions of a few women physicists, who have given back to the community by nurturing scientific talent and giving a platform for new ideas. These are Émilie du Châtelet, Cecile DeWitt-Morette, Milla Baldo Ceolin and Bimla Buti. Émilie du Châtelet is known for translating Newton's *Principia* into French, and advocacy of Newtonian physics. Cecile DeWitt-Morette founded the famous Les Houches Summer school in France, where many new ideas of physics were generated. Milla Baldo Ceolin initiated the series of international workshops on neutrino telescopes at Venice. Bimla Buti has a foundation for encouraging young Physicists.

Jointly organised by IPA GIPWG and University of Hyderabad
February 3, 2023, YouTube: https://youtu.be/Aw_ebAT8QU4
Speaker: Prof. Bindu A Bambah, Honorary Professor, University of Hyderabad



She graduated from Panjab University and received her Ph.D in Theoretical Physics from The University of Chicago under the guidance of the Nobel Laureate Prof. Y. Nambu. She works on the interrelations between Particle physics, Fluid Dynamics, Quantum Optics and Cosmology. She was joint faculty in the Center for Women's Studies, working on factors that affect gender equality in Physics. She is a co-author of the Hyderabad Charter for Gender equity in Physics. She received the UNESCO Young Scientists Award for South Asia in 1991 and the Mother Teresa Award for Sciences.



PAVINARI (पविनारी) Lecture 4

Lecture Series on Women Physicists



Overlooked for the Nobel:

Lise Meitner and the discovery of fission

Discovery of phenomenon of fission was a momentous discovery that certainly deserved the Nobel Prize. Despite being a central character in this discovery, Lise Meitner was overlooked for the Nobel and it was awarded to her collaborator Otto Hahn alone.

The journey of Lise Meitner from her early childhood to one of the great scientists of the 20th Century is a testimony to her grit and single minded devotion to Physics in overcoming prejudice, misogyny and lack of opportunities. In this talk I shall try to give a glimpse of her epic and awe inspiring journey.

Joint IPA GIPWG PAVINARI - ASET Colloquium, TIFR (Online), March 28, 2023

YouTube: <https://youtube.com/live/nDRNIFmCyWc?feature=share>

Speaker: Prof. Amit Roy



Amit Roy, a former Director of Inter-University Accelerator Centre, got his Ph.D. from TIFR, Mumbai. After continuing his research in experimental nuclear physics at TIFR till 1990, he shifted to IUAC where he led the building the Superconducting Linac at IUAC and pioneered the development of Niobium superconducting cavity for accelerators in India. He is a Fellow of the National Academy of Sciences, India and has received many accolades. His research interests are in Nuclear Physics, Accelerator Physics and Atomic Physics and he enjoys communicating science.



PAVINARI (पविनारी) Lecture 5

Lecture Series on Women Physicists



Making a splash in surface science: *The life and work of Agnes Pockels*



Washing up greasy dishes is perhaps just an unpleasant everyday household chore. But, for Agnes Pockels, it inspired careful investigative experiments that would lead to her to make the very first direct measurements of the surface tension of a liquid. Pockels' work was fundamental in establishing the field of interface and surface science. Her methodical scientific approach was remarkable for someone with no formal training or degree, and kept out of the educational system, given the rules of the times. Let's take a journey through life and work of an amazing scientist.

Jointly organised by IPA IPWG - HBCSE, TIFR, Mumbai (Hybrid mode)

4 PM, April 25, 2023

YouTube: https://www.youtube.com/live/_IXmBk0W8Vg?feature=share

Speaker: Prof. Arnab Bhattacharya

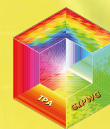


Arnab Bhattacharya is a scientist and science communicator at the Tata Institute of Fundamental Research (TIFR) in Mumbai, and the Centre Director of TIFR's Homi Bhabha Centre for Science Education (HBCSE). He pioneered Chai and Why?, Mumbai's popular science café and also coordinates TIFR's public outreach activities. He was awarded the *Indira Gandhi Prize* for the Popularization of Science by INSA in 2017.



PAVINARI (पविनारी) Lecture 6

Lecture Series on Women Physicists



Tale of Photo 51 - Puzzle of DNA & Rosalind Franklin

The name of Rosalind Franklin (1920-1958), today, is synonym with the discovery of the structure of DNA. Her diffraction pattern provided the proof of the double helix. However, her contributions were not fully recognized during her lifetime. Even though her data was essential for the discovery, she did not receive the limelight she deserved. Her journey for DNA research and discovery is embedded with many instances that reflect uncomfortable, and at times, hostile work atmosphere she faced as a woman scientist. Rosalind's remarkable life as a scientist was defined by her unwavering commitment to rigor, excellence, and relentless determination. This talk will give glimpses of her inspiring journey.

Speaker: Prof. Shikha Varma, Institute of Physics (Retired)

She received her PhD from Syracuse University, New York, in Experimental Condensed Matter Physics and works with Ion Beam Accelerators and utilizes various spectroscopy and microscopy techniques. She is the chairperson of Accelerator User committee of IUAC, Delhi, and is an editorial Board member of PRAMANA and Frontier. She is currently member of various SERB & DST committees including Women in Science (POWER, WEA, WISE-KIRAN). She is chair of the GIPWG-Condensed Matter group, and is a strong advocate for equity in science. She has been making strong efforts for spreading the awareness of gender related issues.

