

## THE 100<sup>TH</sup> ANNIVERSARY OF PROF. ABDUS SALAM – A BRIGHT MIND AND A GLOBAL LEGACY

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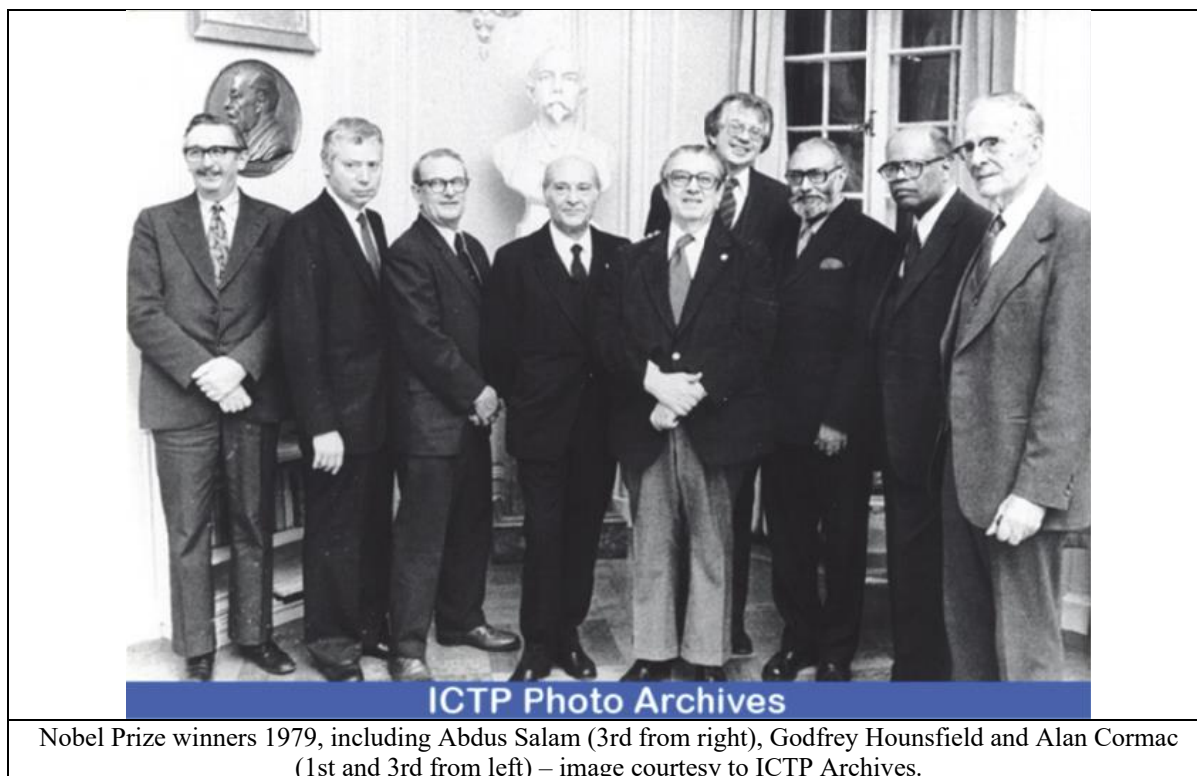
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2026 marks another milestone in the development of modern physics – Abdus Salam’s 100th anniversary. It is a moment to honour Prof. Salam as one of the 20th century’s most influential theoretical physicists, celebrated for unifying the weak and electromagnetic forces — work that earned him the 1979 Nobel Prize in Physics. Today, Salam’s 100th anniversary highlights his impact on global science, international collaboration, and pioneering role in global research.

Abdus Salam is a pioneering Pakistani theoretical physicist, who spent the main part of his professional life in the United Kingdom. His work reshaped modern particle physics. Born in 1926, he became world-renowned for co-developing the electroweak theory, unifying the weak nuclear force and electromagnetism — a breakthrough that earned him the 1979 Nobel Prize in Physics. Salam taught at Cambridge and Imperial College London, where he built a leading research group and mentored future Nobel laureates.

Although Prof. Salam’s primary scientific contributions are not directly related to the medical physics, a further development of his career set a standard for education in the field theoretical physics extending his legacy far beyond his scientific achievements: in 1964 he founded the International Centre for Theoretical Physics (ICTP) in Trieste, Italy - dedicated to advancing research and supporting scientists from developing countries.

By coincidence Prof. Abdus Salam received his Nobel Prize in Physics in 1979, the same year when two medical physicists - Godfrey Hounsfield and Allan McLeod Cormack - received the Nobel Prize for Physiology or Medicine. Their discovery of the X-ray Computed Tomography transformed totally medical diagnostic imaging and opened the ways for the discovery and medical implementation of many new medical imaging methods.



Prof. Abdus Salam supported further medical physics when approving in 1988 the First ICTP Medical Physics College – an activity initiated by Dr Anna Benini and Prof. Luciano Bertocchi (who was ICTP Deputy Director). From this time now 38 years this College is the beacon of medical physics for many students from the Low-and-Middle Income (LMI) countries. Over 1500 students from nearly 90 LMI countries have attended this College over the years. Many of them becoming leading professionals for their countries and regions.

This way the legacy of Prof. Abdus Salam extends not only in theoretical physics, but also in physics applied to medicine, and from there to healthcare provision in all LMI countries. Further, in 2014 ICTP established the unique Master programme in Advanced Medical Physics – a join activity with the University of Trieste and the International Atomic Energy Agency (IAEA). The ICTP Award “Spirit of Salam” was presented to Prof. Bertocchi in 2015 (one year after the establishment of the Award), while in 2025 this ward was presented to the MSc Coordinator Prof. Renato Padovani.

The ICTP Medical Physics College will celebrate its 40th anniversary in 2028 which in turn will become another important occasion to appreciate Abdus Salam’s contribution to our profession. The growing demand for and interest in medical physics, the achievements of our colleagues worldwide, the sustainable progress of the profession in the LMICs would be unthinkable without the cornerstone set by Abdus Salam and the continuous support of the ICTP which proudly carries his name.



First ICTP College on Medical Physics, 1988



Two photos of ICTP College on Medical Physics 2024 – with all students and Faculty