## Prabahan Kemal Kabir (1933–2004)

Prabahan Kemal Kabir, better known as Pasha Kabir to his numerous friends and admirers, who was an internationally known particle physicist specializing in the theory of Weak Interactions, died on Sunday, 29 August 2004, in a drowning tragedy at Gopalpur-on-sea on the Orissa coastline. He was 71 and is survived by his wife Akbari Begum, son Omar Arjun and daughter Nayantara Ayesha.

Pasha Kabir was born on 30 June 1933 at Calcutta, to Humayun Kabir (a minister of education in the Indira Gandhi Cabinet) and Shanti (nee) Das (a freedom fighter in the forties). He went to study in St Paul's School, Darjeeling at the tender age of 6. He shifted to Mt Hermon School, Darjeeling in 1945 from where, at the young age of 14 he passed the Senior Cambridge examination. Then in 1948, he joined the St Stephens College, Delhi, from where he did his BSc in 1951 and M Sc in 1953, with high first class in both. In September 1953 he went for higher studies to Cornell University, Ithaca, NY where he registered for the Graduate Program at the Newman Laboratory of Nuclear Studies. (This correspondent had arrived at Cornell a year earlier, so he had the opportunity for a close contact with him extending over two years.) Pasha's sheer brilliance, fine sense of humour, and a rare oratorial skill, instantly attracted him to fellow students and faculty alike. He soon became the President of the India Association and held the post for the rest of his stay at Cornell. He completed his Ph D in Physics under the guidance of Prof. E. E. Salpeter in 1955, at the incredibly early age of 22.

1955 was just the time when Lee and Yang were in the process of announcing their path-breaking discovery of parity violation in beta decay. Pasha understood the significance of this result and during his first post-doctoral assignment in the Princeton Institute of Advanced Study, he earned the rare opportunity of interacting with the group led by Lee and Yang on parity violation in Hyperon decay (*Phys. Rev.*, 1957, **106**, 1367). This marked his debut into the physics of weak interactions, on which he made full use

of his richness and clarity of ideas and power of expression to get instantly attracted to his peers, which in turn earned him further recognitions on his favourite subject which stayed firmly with him till the end.



At the end of his 2-year term at the Institute of Advanced Study, Pasha returned to India where he joined the Faculty of the Saha Institute of Nuclear Physics at Calcutta, and stayed for about 3 years, before once again going to the US, to join the Faculty of Carnegie Mellon University at Pittsburgh in 1961. During his short stay in India, however, he had made a deep impression on the physics community through his characteristic style of presentation of the Weak Interaction theory and its numerous implications. To cite one instance, the first Indian Summer School on physical theory was held at Mussoorie in 1959 under the Directorship of S. N. Bose (which this correspondent had also attended). Here, Kabir's exposition of the concept of parity violation in weak interactions drew unqualified applause from all participants, especially from the director.

At Carnegie Mellon, Kabir continued to pursue his Weak Interaction career

with full vigour and produced his first (edited) book entitled Weak Interactions (Gordon and Breach, New York, 1962) which was the first of its kind on the subject, and aptly found many citations in the then contemporary literature. Pasha next shifted to the Rutherford Laboratory in UK where he worked from 1964 to 1970, before finally moving in 1971 to the University of Virginia (his final destination). The years at Rutherford Lab were a comparative period of hybernation (as seen from a relative lull in journal publications), at the end of which he produced his second book The CP Puzzle: Strange Decays of K<sup>0</sup> (Academic Press, London, 1968). This book was so well received that by the seventies he was regarded as an acknowledged authority on Weak Interactions. Standard recognitions during this period included the Fellowship of the American Physical Society and the (coveted) Editorship of the International Journal Physics Letters B.

Pasha Kabir continued to publish his ideas on discrete symmetries and their violations with respect to carefully selected processes likely to throw light on them from the experimental angle. Especially interesting were his ideas of T-violation either directly or by inference via CP violation. Many of his papers (about 25) on this subject are widely quoted.

Although anchored outside India for professional reasons, Pasha Kabir kept a close contact with India. He used to visit his country at least once a year, and kept regular contact with his colleagues at major laboratories through lectures/seminars as well as informal meetings. His versatile knowledge of diverse facets of discrete symmetries was matched only by his fund of jokes, stories and anecdotes with which he used to regale his friends and admirers alike. In his sudden and untimely death, global physics has lost a true freelance thinker, and Indian physics, a warm friend.

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