Obituary: Prof. Anjan Kundu

Prof. Anjan Kundu, from the Saha Institute of Nuclear Physics and Member of the Editorial Board of Proceedings of the Royal Society A since 2012, passed away on 31 December 2016, aged 63. He is survived by his wife, his daughter and a grandchild. We lose a dear friend and a passionate, energetic and helpful colleague. He will be greatly missed. Prof. M. Lakshmanan, former member of the Editorial Board and a friend and colleague of Anjan’s for over three decades, said ‘I consider Anjan to be one of the finest mathematical physicists and his demise is an irreparable loss’. Anjan was also a humanist and was very fond of discovering new places, different cultures, exotic food, as well as writing science fiction stories and poetry in his mother tongue, Bengali.

Anjan was a mathematical physicist who specialized in classical and quantum integrable systems and their connection with theoretical physics. Anjan showed early signs of great potential for an international career. After being schooled in one of the best high schools of his home town Kolkata (Ballygunge Government High School), he was admitted at the renowned Presidency College to the Honours course in Physics. At the same time, he passed the test for the prestigious Government of India and USSR Government scholarship (Shastri Bhawan) in 1970. The same year, he was also selected for the National Talent Search Scholarship. In 1971, he was then enrolled at the People’s Friendship University, Moscow, for an integrated course of 5 years, where the students had to learn Russian only for the first year. Anjan successfully passed the course with ‘Excellence’ in 1976, consistently obtaining outstanding results.
He then started his PhD at the same university under the supervision of Prof. Yuri Petrovich Rybakov on the topic of solitons in field theories with topological charge and obtained it in 1981. After a post-doctoral appointment in Dubna USSR and a lecturer position in Pilani India, between 1981 and 1985, he joined the Saha institute in 1985 where he led a successful career. He was elected a Fellow of the Indian National Science Academy in 2014 and the Indian Academy of Sciences, Bangalore in 2015.

Among other things, he is known for the Kundu, Kundu–Eckhaus and Radhakrishnan–Kundu–Lakshmanan equations which have applications in nonlinear optics. The quantization of the Kundu–Eckhaus equation has been shown to provide an example of anyonic behaviour in a gas of particles with contact interaction. These results were published in the renowned journal Physical Review Letters in 1999. International recognition also came in the form of collaborations all around the world and special honours. During his tenure at SINP, he visited Germany as an Alexander von Humboldt Foundation Fellow at senior level during 1993–1994 and again revisited in 1996, 2004 and 2005. He was also a Senior Associate at the International Centre for Theoretical Physics, Trieste, Italy, during the period 2006–2011. In recent years, he devoted himself to the difficult question of defects and impurities in classical integrable systems. Despite being diagnosed with blood cancer, he kept showing the passion, energy and clever intuition of the great scientist that he had always been. It was very humbling to witness this. I came to know him personally through this research area that we both contributed to; we first met in 2011 in London when I invited him for a week to start a potential collaboration. Little did I know then that I would not only gain a remarkable colleague but also an amazing friend. Following this visit, there was another one in 2012 which led us to find an answer to the 7 year old open problem of Liouville integrability in the presence of a defect. In 2015, I had the pleasure to visit Kolkata and Anjan for six weeks thanks to an invited chair position obtained from the Indian National Science Academy. This is when I met Sanjukta, his beloved wife, and I benefited from their exceptional kindness and hospitality.

We have lost a tireless, passionate colleague who devoted his life to the advancement of science and knowledge.

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