Prahlad Chunilal Vaidya

(March 23, 1918 – March 12, 2010)

Eminent general relativist and gravitation theorist Professor P. C. Vaidya (Prahlad Chunilal Vaidya) passed away on March 12, 2010. He was 92.

In the passing away of PCV, IAGRG has lost one of its Founder Members and a father figure (his role in creation of IAGRG is listed elsewhere on this webpage). The Indian and International gravitation and cosmology community has lost a renowned and acclaimed gravitation theorist.

PCV's research on general theory of relativity was started when he went to Banares Hindu University in 1942, where he joined the school of relativity started by Professor V. V. Narlikar. It was only ten months that he spent at BHU at that time, during which the beautiful idea of developing a spacetime geometry was born, which would describe the gravitational potentials in the exterior of a radiating star. The well-known Schwarzschild solution describes the geometry around a spherical star, however, it necessarily assumes the exterior of the star to be empty. Vaidya generalized this case to incorporate the radiation from the star, and the metric has become famous now internationally as the Vaidya metric for a radiating star.

The Vaidya metric pioneered the key idea of using the light rays as a coordinate frame. In other words, the idea of a null coordinate was born, which has played extremely significant role in subsequent research in gravitation theory of next many decades, and helped generate several significant results and insights. The Vaidya metric has by now found very many applications in gravitation theory and it is widely used and internationally cited to study many problems in gravitation and general relativity. For an excellent narration of how he arrived at the basic idea for deriving his key equations of this geometry, we refer to his own words and description in the movie given at the link:

From Banares, Vaidya then shifted to Mumbai to work with Dr Homi Bhabha at the Tata Institute of Fundamental Research. However, after spending an year and a half there, the lack of accommodation in Mumbai made him to take up the position as a professor of mathematics at Vallabh Vidyanagar. From there he moved as Principal of the Visnagar college, and finally to the professorship of mathematics at the Gujarat University.

This was the beginning of a glorious teaching career which he always enjoyed enormously, and he was always very proud to call himself a mathematics teacher. In addition to being an eminent scientist, PCV continued to be a teacher par excellence all his life. His lectures, always delivered using a chalk and black board, never failed to captivate the student and always created thrill and excitement to generate a lasting interest in the topic. He has written memoirs of his teaching and research, which he titled, 'Chalk and Duster'. Even after he formally retired from his professorship position at the Gujarat University, he regularly visited the mathematics department for many years, continuing his research and educational activities. He would always insist on using a bicycle to go to the university, even when he became the Vice- Chancellor of the Gujarat University, and also later, till he was in his eighties.

He taught mathematics to several generations of students, for more than six decades. All his life, he worked continuously for the improvement of science education and research, and in particular for the development of mathematics education in Gujarat. At his suggestion, Vikram Sarabhai helped create a mathematics laboratory in Ahmedabad, probably for the first time in India, which is known today as the Community Science Center. He established the Gujarat Mathematical Society, and the 'Suganitam' mathematics magazine, which he started in 1960s and ran for many decades, to popularize mathematics in the state. It goes today to numerous schools and colleges and has inspired generations of mathematics teachers and students.

PCV always exhibited a constant and abiding interest in education and society around him throughout his life. He was Vice-Chancellor of the Gujarat University, Chairman of the Gujarat Public Service Commission, and also a Member of the Union Public Service Commission for many terms, and rendered active and invaluable service through a direct interaction and involvement. He was well-known as a 'Gandhian mathematician', and was always easy to spot with his Gandhian cap and a tall figure at the IAGRG and ICGC conferences, which he and his wife Vidya Gauri attended meticulously without fail.

PCV is survived by his four daughters, Kumud, Ila, Smita and Hina, and their families.

– Pankaj S. Joshi
President, IAGRG

The picture was taken by historian Indira Chowdhury when she interviewed PCV about an year ago.