

**Professor K G Ramanathan
(1920–1992)**

He was small of build but had a big influence on the post-independence Indian mathematical scene. Despite the legacy of the legendary Srinivasa Ramanujan and several other mathematicians of high standing early in this century, pursuit of mathematics had remained rather weak in India till the fifties. Professor K G Ramanathan was one of the few people responsible for the fortification which has put India firmly back on the international mathematical map. He not only was himself a front-ranking mathematician of international reputation, but also contributed a great deal to the emergence of a strong mathematical base at the Tata Institute of Fundamental Research as also to the overall development of research and teaching of mathematics in India and, to an extent, even beyond our shores.

Kollagunta Gopalaiyer Ramanathan was born on 13 November 1920 in Hyderabad in South India. He got his B. A. from Osmania University (1940), M. A. from the University of Madras (1942) and Ph.D. from Princeton University in 1951. At Princeton he came under the influence of the great mathematician Carl L Siegel, whose deep imprint is noticable on his later career. Soon after his doctorate he joined the Tata Institute of Fundamental Research where he teamed up with Professor K Chandrasekharan in building the School of Mathematics of the Institute and in particular the Number Theory group. His abiding enthusiasm, professional expertise, meticulous style of teaching, tireless working ability and good taste in mathematics played a pivotal role in the development of the School. Not content with his role in building an excellent centre in pure mathematics, he embarked on setting up a centre for application of mathematics, in Bangalore, in collaboration with the Indian Institute of Science. With the help of his contacts with many eminent applied mathematicians around the world, he nurtured the IISc–TIFR programme which has over the years given rise to an active and internationally successful group in applied mathematics.

As a mathematician Professor Ramanathan was well recognized for his achievements in Number Theory, especially the analytic and arithmetic theory of quadratic forms over division algebras with involution. Applying his results on quadratic forms he constructed, in an important paper, infinitely many classes of mutually incommensurable discrete subgroups of the first kind in classical semisimple groups and, following that, in another remarkable paper, settled the question of maximality of discrete subgroups of arithmetically defined classical groups, generalising certain results of Hecke and Maass. A conjecture due to A Oppenheim on values of indefinite real quadratic forms at integral points, which was settled only recently by G A Margulis, was another of his favourite problems and he made a significant contribution, jointly with S Raghavan, pertaining to it. During his last years he had engaged himself actively in studying and expounding the so-called Lost Notebooks of Ramanujan and obtained fruitful extensions of Ramanujan's work on singular values of certain modular functions, Rogers–Ramanujan continued fractions and hypergeometric series.