

Chandra Lal Mehta (1938–2023)

Chandra Lal Mehta, known as Prof. Mehta to his students, was born on 31 July 1938 in Railmagra, Rajasthan, India. He passed away on 4 January 2023, leaving only memories for his family, friends and students. The photo on this page is part of a photo taken by Ajoy Ghatak in February 2018.

After receiving his B.Sc. degree from the University of Rajasthan, Jaipur, in 1957, Mehta joined the M.Sc. programme of Delhi University. He was taught there by well-known scientists such as D. S. Kothari and R. C. Majumdar. One of his classmates was Ajoy Ghatak, who became his lifelong friend. After finishing his M.Sc. in 1959, Mehta was admitted to the Physics Ph.D. programme at the University of Rochester. There, he joined the research group of Emil Wolf, who was famous internationally in the field of optics and had coauthored the well-known book *Principles of Optics* with Max Born.

Mehta completed his Ph.D. in 1964 but remained at the University of Rochester until 1970. During this period, he published many outstanding papers in the areas of coherence theory and quantum optics with Emil Wolf and other colleagues, such as E. C. G. Sudarshan, L. Mandel and N. Mukunda. An example of his scholarship is provided by a set of two papers that appeared in 1964 in the journal *Physical Review*, published by the American Physical Society (Mehta, C. L. and Wolf, E., *Phys. Rev.*, 1964, **134**(Part 1), 1143–1148; Part 2, 1149–1153). In these papers, Mehta and Wolf studied the coherence properties of blackbody radiation from optical sources such as various stars in our and other galaxies. Even though such radiation is typically incoherent when it leaves a star, it develops partial coherence when it arrives at Earth. Mehta and Wolf completed their study on this topic in 1967 by publishing a

third paper in the same journal (Mehta, C. L. and Wolf, E., *Phys. Rev.*, 1967, **161**(Part 3), 1328–1334). After 1965, Mehta became interested in the quantum nature of light. Based on his research accomplishments, he was invited to write a review on the theory of photoelectron counting. It appeared in 1970 as a chapter in the third volume of the book series *Progress in Optics*, edited by Emil Wolf and published by the North-Holland Publishing Company.



Mehta joined the Physics department of IIT Delhi in 1970 as a Professor of Physics. By this time, his M.Sc. classmate, Ajoy Ghatak, had also become a professor in the same department. By coincidence, I had come to IIT Delhi as a Physics M.Sc. student in 1969 and had the privilege of having both Mehta and Ghatak as my teachers. I became in 1971 the first Ph.D. student of Mehta at IIT Delhi. I stayed in his research group until December 1974, when I left for a postdoctoral position in Paris, France. Other students who had joined the group of Mehta by this time were Ramesh Bhogra, Sushma Trivedi, Dilip Ranganathan and Mukesh Sharma.

I have fond memories of my time in Mehta's research group. He treated his students more like friends and often invited them to his house, following the American model. He also socialized with his students and took them occasionally to nearby places for a picnic. I remember one such trip vividly. Mehta asked me and a couple of other students to join him and his family on a multiday trip to the Jim Corbett National Park near Ramnagar in Uttarakhand, which is famous as a Tiger Reserve. We all spent two wonderful days at this park. As my hometown, Kashipur, was close to the park, I invited the entire group to my house for a meal to meet my parents. What impressed me was how gracious Mehta was during all this time. I should add that such trips were quite unusual for IIT Delhi, where most professors avoided social contact with their students. I remained in touch with Mehta after leaving India in 1974, saw him at IIT Delhi whenever I visited India, and even welcomed him to my house during his trips abroad. He was a true gentleman in all respects!

Mehta retired from IIT Delhi in 1999. During the 29 years he spent there, Mehta trained a good number of Ph.D. students, published many high-quality research papers, and acted as the Head of the Physics Department for several years. After retiring, he and his wife, Nirmala, moved and lived in Mayur Vihar, Delhi. He is survived by two sons and a daughter who live in USA and Canada. His family, friends and students will always remember Mehta as a scientist dedicated to acquiring knowledge while fulfilling his duties with love and joy.

GOVIND P. AGRAWAL

*The Institute of Optics,
University of Rochester, Rochester,
New York 14627, USA
e-mail: govind.agrawal@rochester.edu*