

# Indian Scientist

# Ramamurti Rajaraman

Padma Bhushan in 2014



(11 MARCH 1939 – 12 JULY 2025)

Professor Ramamurti Rajaraman was a true giant of Indian physics whose impact reached far beyond the lab. His academic journey took him from the University of Delhi to Cornell University, and he became a respected professor at Jawaharlal Nehru University, even holding visiting positions at top global institutions like Princeton and MIT!

## His Superpowers in Science:

- **Unlocking Nuclear Secrets:** Imagine understanding the tiny building blocks of everything! Dr. Rajaraman was a wizard at nuclear physics, helping us grasp how atomic nuclei are put together. This knowledge is super important for things like nuclear energy and even understanding stars!
- **Exploring Quantum Worlds:** He delved into the strange and fascinating world of quantum mechanics, studying "solitons"—

think of them as stable waves that behave like particles! His work here influenced everything from material science to high-energy physics.

- **Textbook Extraordinaire:** He literally wrote the book on "Solitons and Instantons," a go-to guide for advanced students worldwide!

## A Champion for Peace:

Beyond his scientific brilliance, Dr. Rajaraman was a passionate advocate for a safer world. He played a crucial role in discussions about nuclear disarmament and non-proliferation, even advising the Indian government. He was a founding member of the International Panel on Fissile Materials, working tirelessly to control dangerous nuclear materials. He also frequently shared his insights through public articles on nuclear reactor safety and the risks of nuclear weapons accidents, emphasizing the importance of a responsible nuclear doctrine. His clear voice made him a prominent figure in public discourse on science policy and civil-military relations.

## Awards and Legacy:

For his incredible contributions, he received India's third-highest civilian honor, the **Padma Bhushan**, and the prestigious **Shanti Swarup Bhatnagar Prize**. He mentored countless Indian physicists, leaving a lasting legacy in our nation's scientific landscape. Professor Rajaraman truly showed us that science can be a powerful force for both discovery and peace!