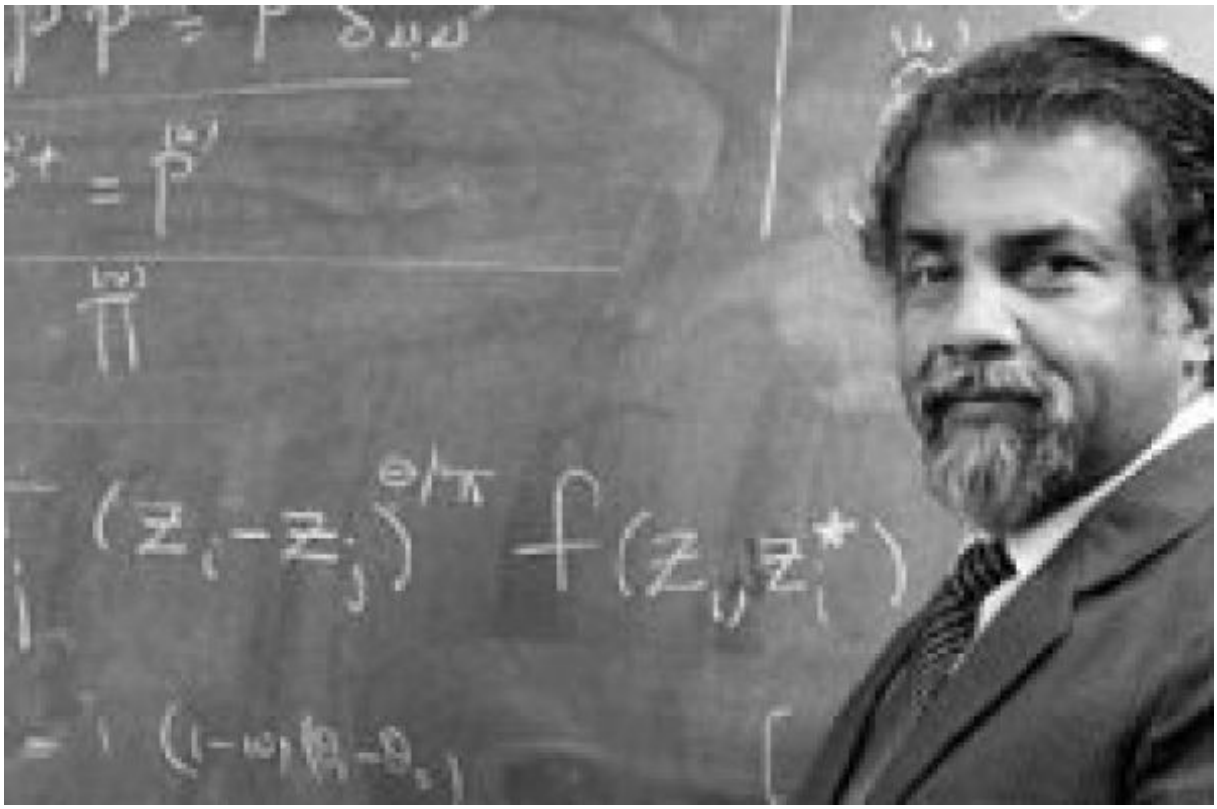

In memory of George Sudarshan

Sudarshan leaves his mark in multiple areas of fundamental physics

May 17, 2018

This week, world-renowned scientist ECG Sudarshan passed away at the age of 86. Originally from Kerala, India, he moved to the US as a graduate student where he went on to build a prestigious career in theoretical physics in the company of legends such as Robert Marshak, Richard Feynman, Murray Gell-Mann, and Roy Glauber among others. From 1969 onwards, he was a professor of Physics at the University of Texas at Austin and a senior professor at the Indian Institute of Science. He worked as the director of the Institute of Mathematical Sciences (IMSc), Chennai, India, for five years during the 1980s dividing his time between India and USA.

Prof. Sudrshan?s career was notable for the long list of seminal contributions that he made in many fields of physics, including theory of optical coherence and coherent states, Glauber-Sudarshan representation, V-A theory of electro-weak interactions, tachyons,

quantum Zeno effect, open quantum system, spin-statistics theorem, non-invariance groups, positive maps of density matrices, quantum computation among others.

While Sudarshan was a clear candidate for the Nobel Prize for many of his contributions, he never received the award. Even so, his work is generally believed to have, at the very least, strongly influenced major breakthroughs that were recognized with the Nobel. He was the recipient of other important prizes, including the Padma Bhushan (Order of the Lotus) presented by the president of India (1974), the Bose Medal from the Indian National Science Academy (1977) and the Dirac Medal (2010).

He was considered by his students and peers one of the most eminent mathematical physicist of all times.