

LIGHT & EINSTEIN'S $E = mc^2$

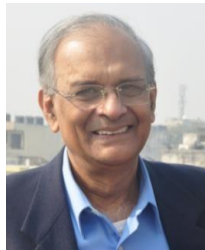
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Abstract: The talk will briefly discuss the significance of Einstein's famous equation $E = mc^2$ which he derived in his Year of Miracles (1905) and understand how light was created. We will also give a very simple derivation of $E = mc^2$.



Ajoy Ghatak is currently Megh Nad Saha Professor of The National Academy of Sciences, India. He received his BSc from Agra College, M.Sc from Delhi University and PhD from Cornell University. After a Research Associateship at Brookhaven National Laboratory, he joined IIT Delhi in 1966. Professor Ghatak has research interests in Fiber Optics & Quantum Mechanics. He has authored several books including his undergraduate text on **OPTICS** which has been translated to Chinese and Persian. His other books include **Quantum Mechanics: Theory & Applications** (coauthored with Professor S. Lokanathan), **Fiber Optics, Lasers and Optical Electronics** (all 3 coauthored with Professor K. Thyagarajan) and his most recent book is on **Einstein's Year of Miracles: $E=mc^2$, The Light Quantum & Special Theory of Relativity**. He is recipient of the 2008 SPIE Educator award in recognition of "*his unparalleled global contributions to the field of fiber optics research, and his tireless dedication to optics education worldwide.*"; the 2003 Esther Hoffman Beller award, instituted by OSA (The Optical Society of America), in recognition of his "*outstanding contributions to optics education ...*"; International Commission for Optics 1998 Galileo Galilei award and also the CSIR 1979 S.S. Bhatnagar award for "*outstanding contributions in physical sciences*". Very recently he received the OSA 2020 Sang Soo Lee award for **his seminal role in the development of fiber optics and guided wave photonics and for pioneering optics education in India.**