J. C. BOSE'S DOUBLE-PRISM EXPERIMENT USING SINGLE PHOTON STATES VIS-A-VIS WAVE-PARTICLE DUALITY

DIPANKAR HOME*

We discuss in this article the significance of the double-prism experiment J. C. Bose had performed in 1897 in order to verify the wave-like nature of electromagnetic radiation, using the phenomenon of optical tunneling that was predicted by Maxwell's equations. In particular, this article focuses on bringing out the contemporary relevance of Bose's double-prism setup that has turned out to be quite fruitful by using single photon states, enabling new insights into the nature of wave-particle duality in the context of quantum physics.