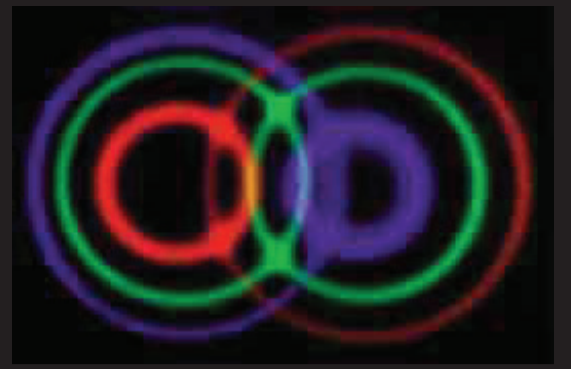


WHAT IS QUANTUM OPTICS?



A P h O Nobel Laureate Talk



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Synopsis:

Light quanta are the fundamental units of radiant energy. When propagating freely they travel at the fastest attainable speed and can live forever. These properties recommend them as ideal messengers for communication of all sorts. Ordinary light sources generate quanta in such an overwhelming abundance however, and in such random states, that we tend to detect them in large numbers, losing sight of their ultimate individuality and the possibility that offers for conveying far more detailed information.

The realization of this divisibility has been with us for a little over 100 years. Its apparent contradiction of the well-established wave picture of light led to a succession of theoretical dilemmas that could only be resolved after some years by the fully developed quantum theory of the electromagnetic field. More recent years have seen the development of a succession of experimental techniques for generating and detecting individual light quanta, or small numbers of them, in controllable states. We shall discuss several of these steps on the way to a more richly detailed science of optics.

Light refreshments will be served!

ORGANISED BY:



SUPPORTED BY:



Date: 18th May 2014

Time: 2.15pm – 3.15pm

Venue: University Cultural Centre, National University of Singapore

Registration: <http://www.apho2014.org/eventreg.html>