

SEMINAR NOTICE

*Department of Physics and Engineering Physics
University of Saskatchewan*

SPEAKER: Prof Toshiyuki Mitsuhashi
KEK High Energy Accelerator Laboratory, Tsukuba, Japan

TOPIC: *A Flavour of Quantum Optics: an Introduction to elementary Quantum Optics*

DATE: Tuesday October 8th, 2019

TIME: 3:30-4:30 p.m.

PLACE: Physics 103

ABSTRACT:

The physics of the wave and particle aspects of light has been one of the big issue in Optical Physics since the time of Newton. In this lecture, to get a flavour of Quantum Optics, the Quantization of the electro-magnetic field using the well-known procedure for quantizing the harmonic oscillator is introduced. Using this procedure, the electro-magnetic field is represented by creation and annihilation operators and a photon number state. A very special case of a photon number state – the coherent state of light – will be discussed in more detail. A flavour of the phase state of the light is also introduced. Finally, some interesting experiments on Quantum Optics will also be presented.

Coffee and Cookies will be served in Physics lounge at 3:00 p.m. for those attending the seminar.