



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 2297

Type: **Invited Speaker / Conférencier(ère) invité(e)**

Schrödinger cats in quantum optics (I)

Tuesday, June 12, 2018 3:30 PM (30 minutes)

Superpositions of macroscopically distinct quantum states, introduced in Schrödinger's famous Gedankenexperiment, are an epitome of quantum "strangeness" and a natural tool for determining the validity limits of quantum physics. The optical incarnation of Schrödinger's cat –the superposition of two opposite-amplitude coherent states –is also the backbone of quantum information processing in the continuous-variable domain. The talk will cover recent experimental progress on preparing such states, applying them in quantum technology and communications, and increasing their amplitudes.

Primary author: Dr LVOVSKY, Alexander (University of Calgary, Russian Quantum Center)

Presenter: Dr LVOVSKY, Alexander (University of Calgary, Russian Quantum Center)

Session Classification: T4-2 Quantum Optics and Trapped Ions** (DAMOPEC) | Optique quantique et ions piégés (DPAMPC)

Track Classification: Division of Atomic, Molecular and Optical Physics, Canada / Division de la physique atomique, moléculaire et photonique, Canada (DAMOPEC-DPAMPC)