Contribution ID: **437** Type: **Oral Presentation**

Quantum Physics with Trapped Ions

Friday, 15 July 2011 08:00 (30 minutes)

In this non-specialist lecture I will provide an overview of the field of ion trapping. Ion traps are used world wide to push the limits of quantum technologies. They are a lead contender for building quantum computers, they are capable of measuring tiny forces at the level of yocto (10⁻²⁴) Newton and to date they hold the record for the most accurate atomic clock (that clock would neither gain nor lose a second in about 4 billion years!). Moreover, the technological capability of trapping single ions make these traps ideal for studying quantum optical phenomena.

Primary author: Dr UYS, Hermann (National Laser Centre, CSIR)

Presenter: Dr UYS, Hermann (National Laser Centre, CSIR)

Session Classification: LOS

Track Classification: Track C - Lasers, Optics and Spectroscopy