



# Quantum Optics School

November 17 to 20, 2025

Santa Cruz de la Sierra, Bolivia



In celebration of the International Year of Quantum, the International Commission for Optics, ICO, in cooperation with the IberoAmerican Optics Network, RIAO, and the Universidad Privada Boliviana is organizing a *International School about Quantum Optics* in parallel with the RIAO-OPTILAS 2025 conference, the flagship event for optics and photonics in the Iberian-American region, that will take place from November 17 to 21, 2025, at the Santa Cruz de la Sierra Campus of the Universidad Privada Boliviana.

In an active and interactive way and open casual and friendly atmosphere, world renowned scholars and researchers will address Quantum and Quantum Optics from the very basics to some more advanced topics both theoretical and experimental or applied including with industrial applications examples.

The School' sessions will be distributed along the week with a schedule that will allow participants to also attend and enjoy the activities of RIAO-OPTILAS 2025 conference.

Provisional list of lectures:

The History of Quantum

*Efrain Solarte, Universidad del Valle, Colombia*

From Semi-Classical to Quantum Theory: Understanding Atom-Field Interactions

*Imrana Ashraf Zahid, Quaid-i-Azam University, Pakistan*

Introduction to quantum nonlinear optics

*Jose Luis Paz, Universidad Nacional Mayor de San Marcos, Peru*

How to use quantum optics for non-linear optics

*Humberto Michinel, University of Vigo, Spain*

Quantization of the Free Electromagnetic Field and Quantum States of Light

*Imrana Ashraf Zahid, Quaid-i-Azam University, Pakistan*

Precision measurement in optics and quantum optics

*John Howell, Chapman University, USA*

Optical quantum communications

*Yaseera Ismail, Stellenbosch University, South Africa.*

Basics of Photoacoustic Spectroscopy (with Prototype Demonstration)

&

Bringing Photoacoustic Spectroscopy to Industrial Applications

*Abdul Rahman, University of Szeged, Hungary.*

*University of Minho, Braga, Portugal, June 18, 2025.*

*Manuel Filipe P. C. M. Costa*

*(Chair of the Education Committee of the International Commission for Optics)*



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