

LiSA 2025

– Light in South America –

An International Conference to Bring the Recent Light Advances in Modern Applications

📍 Windsor Barra Hotel, Rio de Janeiro, Brazil
📅 12th to 18th October, 2025



① ALL ACTIVITIES WILL TAKE PLACE IN THE AUDITORIUM
Registration Open: Daily (09:00 - 18:00)

Artificial Intelligence
for Photonics and Biophotonics

Biophotonics for Life and Health

Green Energy

Photonic Materials

Quantum Science and Technologies

Sunday, October 12

Day 1

Time	Activity
14:00 - 18:00	REGISTRATION OPEN

Monday, October 13

Day 2

Time	Activity
08:30 - 09:00	OPENING CEREMONY
Communication Session	Artificial Intelligence for Photonics and Biophotonics – Session 1 Chair: Anderson Gomes, UFPE and ABC, Brazil
09:00 - 10:00	PL Plenary: Paras Prasad, University at Buffalo, USA – <i>Neurophotonics : Integrating Photonics with Artificial Intelligence and Neurobiotechnology for Brain Theranostics</i>
10:00 - 10:20	COFFEE BREAK
10:20 - 10:50	KN Keynote: Ammasi Periasamy, University of Virginia, USA – <i>Monitoring Drug Cellular Uptake in Live Cancer Cells: Two-photon FLIRR Microscopy and Machine Learning Analysis</i>
10:50 - 11:10	Inv Invited: Mauro Baesso, Federal University of Maringá, Brazil – <i>Investigation of Heat Accumulation from QCL Irradiation in Photothermal Imaging of Biological Samples</i>
11:10 - 11:30	Inv Invited: Denise Zezell, IPEN/CNEN, Brazil – <i>nrSEIRA for Amoxicillin Monitoring Using Laser-Synthesized Hybrid Metal Nanoparticles</i>
11:30 - 11:45	Or Oral: Jamil Ahmad, Federal University of Sergipe, Brazil – <i>Advanced Optical Sensitive Thermometer Based on Lead Sulfide Quantum Dots Doped Glasses, Probing Temperature-dependent Photoluminescence Intensity</i>
11:45 - 12:00	Or Oral: Zhe Chen, Jinan University, China – <i>Ultra-sensitive stretchable photonic-electronic skins for detection of full-range human motions</i>
12:00 - 14:00	LUNCH
Communication Session	Artificial Intelligence for Photonics and Biophotonics – Session 2 Chair: John Girkin, UK
14:00 - 15:00	PL Plenary: Daniel Razansky, University and ETH Zurich, Switzerland – <i>Listening to Light and Seeing Sound in the Brain</i>
15:00 - 15:30	KN Keynote: Herculano Martinho, Federal Universidade Federal do ABC, Brazil – <i>Title: TBA</i>
15:30 - 15:45	Or Oral: Piotr Zdankovski, Warsaw University of Technology, Poland – <i>Common-path Grating-based Digital Holographic Microscopy and Optical Diffraction Tomography for Biomedical Imaging</i>
15:45 - 16:00	Or Oral: Daniela Silva, IPEN, Brazil – <i>Automated Classification of Serum Images from Mice Exposed to [¹⁷⁷Lu]-DOTATATE: A Proof-of-Concept Using Machine Learning</i>
16:00 - 16:50	COFFEE BREAK
16:50 - 17:20	KN Keynote: Oscar Martinez UBA, Argentina– <i>SUPPOSE You Can See Beyond Your Instrument Resolution. And Just Processing a Standard Image!</i>
17:20 - 17:35	Or Oral: Daniella Lúmara Peres, IPEN/CNEN and USP, Brazil – <i>Oral Squamous Cell Carcinoma Detection through μFTIR Imaging and Ensemble Learning</i>
17:35 - 17:50	Or Oral: Mariana Crispim, Federal University of Pernambuco, Brazil – <i>Engineering Plasmonic Photothermal Damage of Tumors</i>
18:15 - 20:00	WELCOME RECEPTION

Tuesday, October 14

Day 3

Time	Activity
Communication Session	Biophotonics for Life and Health – Session 1 Chair: TBA
09:00 - 10:00	PL Plenary: Chitin Hon – Title: TBA
10:00-10:20	COFFEE BREAK
10:20-11:20	PL Plenary: Peiyi Wang – Title: TBA
11:20-12:20	PL Plenary: Shaobo Fang – Title: TBA
12:20 - 14:00	LUNCH
Communication Session	Biophotonics for Life and Health – Session 2 Chair: TBA
14:00 - 15:00	PL Plenary: David William Provance Jr. – Title: TBA
15:00 - 15:20	Inv Invited: Meiqi Ding – Title: TBA
15:20 - 15:40	Inv Invited: Qun Yan – Title: TBA
15:40 - 16:00	Inv Invited: Huan Liu – Title: TBA
16:00 - 16:50	COFFEE BREAK
16:50 -17:10	Inv Invited: Yan Li – Title: TBA
17:10 -17:30	Inv Invited: Hui Li – Title: TBA

Wednesday, October 15

Day 4

Time	Activity
Communication Session	Biophotonics for Life and Health – Session 3 Chair: TBA
09:00 - 10:00	PL Plenary: Fernando Stefani, University of Buenos Aires, Argentina – Title: TBA
10:00 - 10:20	COFFEE BREAK
10:20 - 10:50	KN Keynote: John Girkin, Durham University, UK – Title: TBA
10:50 - 11:20	KN Keynote: Rubén Ramos García, Instituto Nacional de Astrofísica, Óptica y Electrónica, Mexico – Title: TBA
11:20 - 11:40	Inv Invited: Aman Russom, SciLife, Sweden – Title: TBA
11:40 -12:00	Inv Invited: Fredrik Laurell, KTH Royal Institute of Technology, Sweden – Fiber for Life: Identifying, Picking, Sorting, Counting, and Eliminating Cells
12:00 - 14:00	LUNCH
Communication Session	Photonic Materials – Session 1 Chair: TBA
14:00 - 15:00	PL Plenary: Cid B. de Araújo, Federal University of Pernambuco, Brazil – Random Lasers as Nonlinear "Complex Systems"
15:00 - 15:30	KN Keynote: Klaus Krambrock, Federal University of Minas Gerais, Brazil – Engineering and Analysis of Spin Defects in Hexagonal Boron Nitride (h-BN): Applications in Photonics and Photocatalysis
15:30 - 16:00	KN Keynote: Ashok Ganguli, IISER, Berhampur, India – Design of Functional Nanostructures for Energy and Biomedical Applications
16:00 - 16:20	Inv Invited: Christiano Matos, Universidade Presbiteriana Mackenzie, Brazil – Engineering Nonlinear Frequency Conversion in SiN Waveguides with MoS ₂ Monolayers
16:20 - 16:50	COFFEE BREAK
16:50 - 17:50	POSTER SESSION #1
19:30	CONFERENCE BANQUET

Thursday, October 16

Day 5

Time	Activity
Communication Session	Quantum Science and Technologies – Session 1 Chair: TBA
09:00 - 10:00	PL Plenary: Mehul Malik, Heriot Watt, UK – <i>Title: TBA</i>
10:00 - 10:20	COFFEE BREAK
10:20 - 10:50	KN Keynote: Jeroen Anton, National University of Singapore, Singapore – <i>Proton Beam Writing at the Nanoscale for Deterministic Creation of Optically Active Spin Centers</i>
10:50 - 11:10	Inv Invited: João Pereira, RISE, Sweden – <i>Title: TBA</i>
11:10 - 11:30	Inv Invited: Gabriel Bié, Fluminense Federal University, Brazil – <i>Title: TBA</i>
12:00 - 14:00	LUNCH
Communication Session	Green Energy – Session 1 Chair: TBA
14:00 - 15:00	PL Plenary: Sidney Ribeiro, UNESP, Brazil – <i>Title: TBA</i>
15:00 - 15:30	KN Keynote: Euclides Marega, University of São Paulo, Brazil – <i>Title: TBA</i>
15:30 - 16:00	KN Keynote: Jarbas Castro, University of São Paulo, Brazil – <i>An Example of How Optics and AI Can Help Sustainable Agrobusiness</i>
16:00 - 16:15	Or Oral: Teófanés Serna, Federal University of Uberlândia, Brazil – <i>Green Synthesis of Carbon Dots Derived from Vegetable Oils for Bioapplications</i>
16:15 - 16:50	COFFEE BREAK
16:50 - 17:50	POSTER SESSION #2

Friday, October 17

Day 6

Time	Activity
Communication Session	Quantum Science and Technologies – Session 2 Chair: TBA
09:00 - 10:00	PL Plenary: Luiz Davidovich, Federal University of Rio de Janeiro, Brazil – <i>Title: TBA</i>
10:00 - 10:20	COFFEE BREAK
10:20 - 10:50	KN Keynote: Gabriel Molina, Centro de Física de Materiales, Spain – <i>Title: TBA</i>
10:50 - 11:10	Inv Invited: Ernesto Galvão, Fluminense Federal University, Brazil – <i>Title: TBA</i>
11:10 - 11:30	Inv Invited: Thiago Guerreiro, Pontifical Catholic University of Rio de Janeiro, Brazil – <i>Title: TBA</i>
11:30 - 11:45	Or Oral: Guilherme Torelly, Pontifical Catholic University of Rio de Janeiro, Brazil – <i>Light Storage in High-Q Planar Optical Cavities Limited by Absorption Below the GaAs Bandgap</i>
12:00 - 14:00	LUNCH
Communication Session	Quantum Science and Technologies – Session 3 Chair: TBA
14:00 - 14:30	KN Keynote: Antonio Zelaquett, Fluminense Federal University, Brazil – <i>Title: TBA</i>
14:30 - 15:00	KN Keynote: Carmen Gilardoni, Centro Brasileiro de Pesquisas Físicas, Brazil – <i>Title: TBA</i>
15:00 - 15:20	Inv Invited: Rafael Barros – <i>Title: TBA</i>
15:20 - 15:40	Inv Invited: Gabriel Aguilar, Centro Brasileiro de Pesquisas Físicas, Brazil – <i>Title: TBA</i>
15:40 - 15:55	Or Oral: Pedro Ferreira, Federal University of Pernambuco, Brazil – <i>Characterization of the Spatial Coherence in Four-Wave Mixing Signals</i>

Time	Activity
9:00 - 10:00	ORGANIZERS MEETING
10:00 - 10:20	PANEL ON SCIENTIFIC COLLABORATION BRAZIL-CHINA
10:20 - 10:50	ORGANIZED SCIENTIFIC MEETINGS
12:00	DEPARTURE

LISA 2025 Conference Program | Windsor Barra Hotel, Rio de Janeiro, Brazil
Program subject to change. Please check for updates.