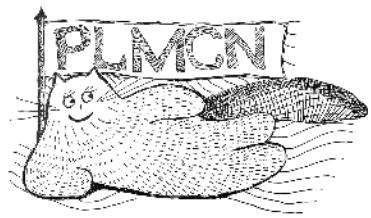
PLMCN23 CONFERENCE PROGRAM



Tuesday, April 11th

09:00 Registration

Excitons and Polaritons in 2D Materials

09:30 Wei Bao (invited talk)
Exciton-polaritons with halide perovskites

10:15 Daniel Suarez-Forero
Spin-selective light-matter coupling of a 2D hole gas-microcavity system in the Quantum Hall regime

10:30 Coffee break

Optics of 1D structures and Quantum Dots

11:00 Carlos Antón Solanas (invited talk)
Quantum dots in III-V semiconductors and in 2D crystals: a new generation of efficient quantum light sources

11:30 Lukas Husel
Telecom-band single photons from functionalized carbon nanotubes coupled to an open cavity

11:45 Jaime David Díaz Ramírez
Composed effects of electron-hole exchange and near-field interaction in quantum-dot-confined radiative dipoles

12:00 Coffee break

12:15 Nika Akopian (invited talk)
Multi-qubit photonic devices

12:45 Viktor Tulupenko
Electric field influence on intraband transitions in delta-doped quantum wells

13:00 Lunch

Plasmonics, Metamaterials, Novel optical devices

15:00 Morten Willatzen (invited talk)
Piezoelectric Control of Acoustic and Optical Properties

15:30 Johannes Scherzer
Magneto-Optical Chirality in a Coherently Coupled Exciton–Plasmon System

15:45 Oscar Restrepo Gutierrezor
Effects of high pressures on the structural properties of the GeO_2-PbO glassy system with incorporation of Au nanoparticles for applications in optoelectronic devices

16:00 Raul Esquivel-Sirvent
Tuning radiative heat transfer via surface-polaritons hybridization

16:15 Juan Diego Garro Catano
Effects of quantum confinement in Ag nanoparticles on the spectroscopic properties of the Pr3+ ion doped in germanate glass

16:30 Sergio Castrillon Salazar
Dual band generation and wavelength-switchable fiber soliton laser mode-locked based on monolayer graphene

18:00 Welcome reception

Wednesday, April 12th

Exciton-polariton Bose-Einstein condensates

09:00 Antonio Gianfrate (invited talk)
BIC Exciton-polariton condensate

09:30 Alexey Yulin (invited talk)
The effect of the rotating potential on the resonant and non-resonant interactions in the annular polariton condensates

10:00 Dmitrii Dovzhenko
Next nearest neighbour coupling in exciton-polariton condensates

10:15 Luisa Toledo Tude
A model for thermodynamic analysis of polariton condensation

10:30 Coffee break

Excitons and Polaritons in 2D Materials

11:00 Ivan Shelykh (invited talk)
Light-matter coupling in CrI_3 magnetic monolayers

11:30 Hui Deng (invited talk)
Unconventional Polariton in Van der Waals Semiconductors

12:00 Coffee break

Optics of 1D structures and Quantum Dots

12:15 Sven Höfling (invited talk)
Circular Bragg grating cavities for semiconductor quantum dot based quantum technologies

12:45 Jose Carlos Leon Gonzalez
Influence of a non-resonant intense laser and topological defect on the electronic properties of a GaAs quantum ring under inversely quadratic potential

13:00 Lunch

Exciton-polariton Bose-Einstein condensates

15:00 Michael Fraser (invited talk)
Optically driven rotation of exciton-polariton condensates

15:30 Roman Cherbunin (invited talk)
Quantization of exciton polaritons in shallow optical traps

16:00 Yannis Balas
Stochastic Single Shot Polariton Condensate Polarization Pinning at High Temperatures

19:00 Conference banquet

Thursday, April 13th

Excursion (Starting at 7:00 AM)

Friday, April 14th

Non-Hermitian and Topological physics

09:00 Alexander Khanikaev (invited talk)
Topological polaritonic structures based on patterned bulk transition metal dichalcogenide WS2 crystals

09:35 Sebastian Klembt (invited talk)
Topological insulator vertical-cavity laser array: From fundamental aspects to potential application

10:10 Luciano Ricco
Reshaping the Jaynes-Cummings ladder with Majorana bound states

10:30 Coffee break

Spintronics and exciton spin-related phenomena

11:00 Alexey Akimov
Gyroscope based on NV center in Diamond

11:15 Erika Soto
Catechol aromatic molecular system used as a spintronic device

11:30 María Paula Rojas Sepúlveda
Effects of the exciton fine structure splitting on the entanglement-based quantum key distribution

11:45 Coffee break

Exciton-polariton Bose-Einstein condensates

12:15 Matthias Wurdack (invited talk)
Engineering the properties of exciton polaritons in an atomically-thin semiconductor

12:45 Ivan Gnusov (invited talk)
Quantized vortex formation in the "Rotating Bucket" experiment with nonlinear fluids of light

13:15 Lunch

15:30 - 17:00 Poster session

Saturday, April 15th

Exciton-polariton Bose-Einstein condensates

09:00 Eliezer Estrecho (invited talk)
Collective excitations of high-density optically trapped exciton-polariton condensates

09:30 Sergey Alyatkin (invited talk)
Towards lattices of interacting polariton condensates carrying vorticity

10:00 Anna Grudinina
Spectrum of elementary excitations of bound-in-the continuum polariton Bose condensate in a waveguide

10:15 Dogyun Ko
Observation of a single quantized vortex vanishment in exciton-polariton superfluids

10:30 Coffee break

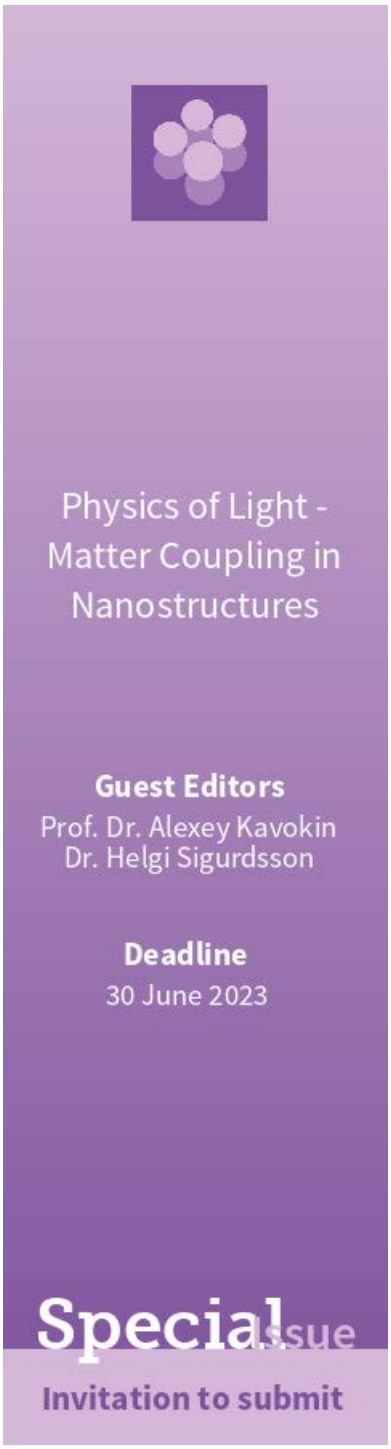
Plasmonics, Metamaterials, Novel optical devices

11:00 Mikhail Portnoi (invited talk)
Optovalleytronics with warped or tilted Dirac cones

11:30 Hernán Gómez-Urrea
Tunable photonic band gaps in two-dimensional Bravais-Moiré photonic crystal composed of copper oxide high-temperature superconductors

11:45 Omer Cohen
Electrically-Driven Plasmons in Metal-Insulator-Semiconductor Tunnel Junctions: The Role of Si Amorphization

12:00 Best student talk and poster award
12:15 Conference closing



MDPI

Mediterranean Institute of Fundamental Physics

GMC UdeA Grupo de Materia Condensada Universidad de Antioquia

UNIVERSIDAD EIA 45 años Ser, Saber y Servir de excelencia académica y humana

CIEC Centro de Gestión de Investigación y Extensión Facultad de Ciencias-UPTC

UNIVERSIDAD DE ANTIOQUIA 1803

Universidad de Córdoba Montería - Colombia "Vigilada Mineducación"

Cuerpo Académico Física y Química Cuántica de los Nanomateriales

Universidad Autónoma de Zacatecas Francisco García Salinas

Posters

Andrés Mauricio Bernal Forigua
Improvement in the conductivity of transparent conductive silver nanowire thin films through thermal and mechanical processes

Anna Sofia Giraldo Neira
Adsorption of small molecules on defective phosphorene

Carlos Alberto Dagua-Conda
Influence of hydrostatic pressure and magnetic field on electronic transport properties in GaAs/AlGaAs finite superlattice considering geometric modifications

Clara Lilia Calderón
Growth and characterization of Bi2S3 thin films for application in solar cells

Daniel Ruiz Mejía
Optical response of Harmonic gaussian well under the effect of an electric field

Fernanda Mora Rey
Electric and magnetic field effects in vertically coupled conical quantum dots

Eylin Acosta-Jimenez
A survey of Photocatalytic effect of ZnO/SnO2 over methylene blue samples

Gene Elizabeth Escorcia SalaHanzs
Optical properties in a conical-shape core/shell quantum dot with a wetting layer: Effects of an electric field and temperature

Gerardo Jafet
Electronic structure and absorption coefficient for 2D GaAs doped with Si, Ge and Sn amphoteric impurities: A DFT study

John Alexander Gil-Corrales
Self-consistent study of GaAs/AlGaAs quantum wells with modulated doping

John Fernando Zapata Mesa
Optical properties of impurities in GaAs spherical quantum dots under the Kratzer potential

Jose de Jesus Alvarado-Goytia
DFT studies of the borophene basic optoelectronic properties doped with aluminum and gallium substitutional atoms

José Sierra Ortega
Energy spectrum of an exciton in a type II core/shell quantum dot. Effects of intense non-resonant laser radiation

Juan Alejandro Vinasco Suárez
Spin Orbit Interaction and Zeeman effect contributions to electro-optical properties in a double quantum ring

L. Germán Daza
Layers and multilayers of ITO, AZO and ITO/AZO thin films grown by RF magnetron sputtering for the adjustment of their optical properties

Lucero Álvarez Miño
Non-zero Magnetoresistance at Room Temperature for a Manganite Tunneling Junction

Luis Arturo Alcalá Varilla
Effects of self-interactions of Coulomb over the relative stability of small copper clusters: Phonon calculations

Marco A. Tun-Carrilloa
Features of light propagation in Rudin-Shapiro-based hybrid dielectric heterostructures

Miguel Eduardo Mora-Ramos
Intersubband optical responses in semiconductor quantum wells with non-conventional confining potentials and spatially-dependent effective mass

Rafael Guillermo Toscano Negrette
Effect of external fields on the electronic and optical properties in ZnTe/CdSe and CdSe/ZnTe spherical quantum dot

Ricardo León Restrepo Arango
Nonlinear optical absorption coefficients in elliptical Core/Shell/Shell quantum dots: Effects of electric and magnetic fields

Tomas Sosa Giraldo
Nonlinear optical properties in hexagonal GaAs/GaAl 0.3 As 0.7 quantum wires: Donor impurity, electric, and magnetic field effects

Waira Murillo-Garcia
Narrow band filters designed from hybrid quasi-periodic photonic crystals with a single defect layer

Yineth Melissa Pérez Ayala
Copper nanowires synthesis for transparent conductive thin films