

International Conference on Terahertz emission, Metamaterials and Nanophotonics

TERAMETANANO-2016

3 – 10 April, Cartagena, Colombia

Program

Sunday 03.04.2016	
<i>Arrival of the participants</i>	
20:00	Welcome reception. Hotel Capilla del Mar

Monday 04.04.2016			
		Chair: A. Kavokin	Opening Session-Alexey Kavokin
09:00	09:10		
09:10	10:10	Christof P. Dietrich	Room-temperature polariton lasing from fluorescent proteins
10:10	10:50	Keith A. Nelson	Phonon-polaritons and nonlinear THz spectroscopy, Exciton-polaritons and BEC
10:50	11:20	Chair: S. De Liberato	Coffee break
11:20	11:50	Masayoshi Tonouchi	Laser terahertz emission microscope
11:50	12:20	D. Laroze	The effects of the intense laser and homogeneous electric fields on the electronic and intraband optical properties of QRs
12:20	14:00	Chair: T. L. Cocker	Lunch
14:00	14:30	Stefan A. Maier	Plasmonic and dielectric nanoantennas for nanoscale light localization, sensing, and non-linear nanophotonics
14:30	15:00	M. E. Portnoi	Terahertz transitions in quasi-metallic carbon nanotubes and graphene nanoribbons
15:00	15:30	Simone De Liberato	Strong and Coherent Coupling Between Localized and Propagating Phonon Polaritons
15:30	16:00	Chair: M. E. Portnoi	Coffee break
16:00	16:30	Pavel A. Belov	Enhancement of Magnetic Resonance Imaging with Metasurfaces
16:30	17:00	Tyler L. Cocker	Ultrafast terahertz nanoscopy of nanostructures

Tuesday 05.04.2016			
		Chair: M. Helm	
09:00	09:50	Alexey Kavokin	New quantum effect in a two-dimensional electron gas
09:50	10:20	K. Hirakawa	Terahertz spectroscopy of quantum nanostructures far beyond the diffraction limit
10:20	10:50	R. L. Restrepo	Electric and Magnetic fields effects on the second and third harmonic generation in a Tietz-Hua quantum well
10:50	11:20	Chair: Q. Hu	Coffee break
11:20	11:50	Simone De Liberato	Ground State Electroluminescence
11:50	12:20	M. Helm	The strange implications of electron-electron scattering in graphene
12:20	14:00	Chair: K. Hirakawa	Lunch
14:00	14:30	Malik Ralhanov	Optical Heterodyne Techniques for Interferometric Measurement of Very Small Displacements and Phases
14:30	15:00	Didier Felbacq	Strong and weak coupling of a quantum emitter with a metasurface: a game of poles
15:00	15:30	V. Del Campo	Graphitic nanostructures on Ru(0001)
		Chair:	Coffee break
15:30 — 17:00	POSTER SESSION		

Wednesday 06.04.2016	
Sightseeing day (time — to be updated)	
Excursion (to be updated)	

Thursday 07.04.2016			
		Chair: I. A. Lukyanchuk	
09:00	09:50	Luis Quiroga Puello	Quenching across a quantum phase transition in radiation-matter systems
09:50	10:20	I. A. Shelykh	Transport and Spin Properties of 2DEG Dressed by Light
10:20	10:50	S. Reitzenstein	Injection locking in high-beta microlasers operating close to the quantum limit
10:50	11:20	Chair: M. E. Mora-Ramos	Coffee break
11:20	11:50	Jerome Tignon	Coherent THz emission in multilayer graphene induced by dynamical photon drag
11:50	12:20	J. C. Martínez-Orozco	Nonlinear optical properties in asymmetric double δ -doped GaAs Quantum Wells
12:20	14:00	Chair: L. Quiroga	Lunch
14:00	14:30	Igor A. Lukyanchuk	Terahertz Electrodynamics in Ferroelectric Films and Superlattices: The New Metamaterial with Negative Capacitance
14:30	15:00	Qing Hu	THz QCL frequency combs, amplifiers, and antenna-coupled efficient emitters
15:00	15:30	Mikhail Lapine	New degrees of freedom in nonlinear metamaterials
15:30	16:00	Chair: G. Pozina	Coffee break
16:00	16:30	J. D. Correa	Ab-initio study on graphene/hBN heterostructures
16:30	17:00	P. Cilibrizzi	Static and rotating spin textures in polariton microcavities

Friday 08.04.2016			
		Chair: A. Bousseksou	

09:00	10:00	M. E. Mora-Ramos	Light propagation in hybrid and disordered one-dimensional layered dielectric structures: Spatial field localization
10:00	10:50	Galia Pozina	Super-radiant mode in the periodic structure of InAs monolayers embedded in GaAs Matrix
10:50	11:20	Chair: P. Cilibrizzi	Coffee break
11:20	11:50	Nikita Kavokine	Water floating upon water: optical manipulation of liquid marbles
11:50	12:20	Philippe Ben-Abdallah	Hyperbolic blackbody and many-body near-field heat transfer
12:20	14:00	Chair: A. Tredicucci	Lunch
14:00	14:30	A. Bousseksou	Frequency selection in mid-IR quantum cascade lasers using built-in meta-surfaces
14:30	15:00	Keshav M. Dani	Time Resolved Photoemission Electron Microscopy of Nanoscale Semiconductor Heterojunctions
15:00	15:30	S. Huppert	Ultra-strong coupling with free space radiation
15:30	16:00	Chair: K. M. Dani	Coffee break
16:00	16:30	V. Akimov	Temperature shift of intraband absorption peak in tunnel-coupled QW structure
16:30	17:00		
20:00			Social Dinner, Dancing Hall

Saturday 09.04.2016			
		Chair: T. V. Shubina	
09:00	10:00	Walter Orellana	Porphyrim-based polymeric sheets and nanotubes for light harvesting applications: First-principles calculations
10:00	10:50	Alessandro Tredicucci	Gate-tunable plasmonics in nanostructures
10:50	11:20	Chair: C. A. Duque	Coffee break
11:20	11:50	Igor Meglinski	Optical biopsy with angular momentum of light
11:50	12:20		
12:20	12:50		
12:50	13:20		
			Closing of the Conference: Jerome Tignon, Alexey Kavokin, Giuseppe Eramo, Carlos A. Duque
			Lunch

Sunday 10.04.2016			
Departure of the participants			

Posters

P1	C. A. Duque	Tuning a double quantum well laser by an external nonresonant intense laser field
P2	Carlos A. Criollo	Multiphysics simulation of the emission characteristics of Si-GaAs based photoconductive antenna as a THz emitter
P3	J. C. Martinez-Orozco	Nonlinear optical rectification and second and third harmonic generation in double δ -doped GaAs Quantum Wells: Magnetic field effects
P4	J. D. Giraldo-Gómez	Exciton states in ellipsoidal GaAs-(Ga,Al)As quantum dots under applied electric field
P5	E. Kasapoglu	Intense laser field-induced nonlinear optical properties of Morse quantum well
P6	M. E. Mora-Ramos	Non-linear optical response of V-groove quantum wires
P7	M. E. Mora-Ramos	Electronic states and optical response in two-dimensional elliptical quantum dots
P8	R. L. Restrepo	Donor impurity-related nonlinear optical transitions in double quantum rings
P9	R. L. Restrepo	Intense laser field effects on nonlinear optical rectification and second-harmonic generation in an atomic potential profile
P10	R. L. Restrepo	Electron and hole states in two-dimensional quantum dots under applied electric field
P11	V. Tulupenko	Background impurity in SiGe/Si/SiGe n-type QW, δ -doped in the center and the edge
P12	Raúl Guerrero	Structural, electronic and optical properties of nanotubes constructed from 2D carbon-based materials: Biphenylene and nitrogenated holey graphene
P13	H. A. Gómez-Urrea	Bulk-phonon polariton modes in polaritonic one-dimensional photonic superlattices
P14	H. A. Gómez-Urrea	Two dimensional triangular- lattice photonic crystals based on uniaxial polar materials
P15	B. Tanatar	Cooling without contact between bilayer dipolar gases
P16	A. Tiutiunnyk	Electron and donor impurity related Raman scattering and Raman gain in triangular quantum dots
P17	J. H. Ojeda	Transport properties through an aromatic molecular wire
P18	Galia Pozina	Spectral selection of single quantum dots from a dense array via Forster resonance energy transfer