

Programme - COST MP1204 Conference & SMMO 2015 Conference

———— invited talks (30 min) ———— contributed talks (20 min)

Wednesday, April 8		Thursday, April 9		Friday, April 10		Saturday, April 11 (closed sessions)	
9:00	Registration	9:00	Registration	9:00	Registration	9:00	Registration
9:30	WELCOME Opening Remarks	9:30	<u>Gaetano Scamarcio</u> : Optical feedback interferometry in THz quantum cascade lasers: free carrier imaging and optical metamaterial response	9:30	<u>Shumin Wang</u> : Recent progress on dilute bismide	9:30 COST Action MP1204 MC Meeting	
10:00	<u>Roberto Morandotti</u> : Novel THz Applications from Bio-imaging to Signal Processing	10:00	<u>Miriam Serena Vitiello</u> : Photonic engineering of THz quantum cascade resonators	10:00	<u>Arūnas Krotkus</u> : Growth and characterization of dilute bismides for terahertz and laser applications		
10:30	<u>Anna Sitek</u> : Corner-induced electron distribution and optical absorption in polygonal nanorings	10:30	<u>Anna Szerling</u> : Processing of AlGaAs/GaAs and InGaAs/InAlAs/InP semiconductor structures for QC lasers	10:30	<u>Lufti Ozyuzer</u> : Terahertz Wave Emission and Detection from Single Crystals of High Temperature Superconducting Bi ₂ Sr ₂ CaCu ₂ O _{8+δ}		
11:00	Coffee Break	11:00	Coffee Break	10:50	Coffee Break	11:00	Coffee Break
11:30	<u>Hynek Němec</u> : Transient Terahertz Conductivity in Nanoscaled Systems	11:30	<u>Marcin Motyka</u> : On the active region improvement in interband cascade lasers	11:20	<u>Teodor Milenov</u> : Deposition of graphene/ graphene-related phases on different substrates by thermal decomposition of acetone	11:30 COST Action MP1204 MC Meeting	
12:00	<u>Irina Khromova</u> : Measuring terahertz conductivity of resonant carbon microfibers through aperture-based near-field spectroscopy	12:00	<u>Maciej Bugajski</u> : High temperature operation of InGaAs/AlGaAs/GaAs quantum cascade lasers	11:40	<u>Feodor Kusmartsev</u> : The analogy and differences between Sub-Tera-Flux Flow Oscillator and Graphene, Semiconductor Superlattices		
12:20	<u>Filipa R. Prudêncio</u> : One-Way Propagation of Light with Topological Insulators	12:20	<u>Emilia Pruszyńska-Karbownik</u> : Hybrid modes of mid-infrared double trench quantum cascade lasers	12:00	<u>Taylan Takan</u> : Graphene-enabled Electrically-Controlled Terahertz Light Modulators		
12:40	<u>Mateusz Dyksik</u> : Fast Differential Reflectance as a quantitative method of carrier concentration determination in the infrared device structure	12:40	<u>Sarah Houver</u> : Optical sideband generation with mid-infrared quantum cascade lasers up to room temperature	12:20	<u>Lukáš Nádvořník</u> : Artificial graphene: a useful playground for THz spectroscopy?		
12:40				12:40	<u>Florin Mihailescu</u> : Validation of molecules force field parameters using Terahertz spectroscopy		
13:00	Lunch Time	13:00	Lunch Time	13:00	Lunch Time		
14:30	<u>Christelle Kadlec</u> : Dielectric metamaterials for the terahertz range	14:30	<u>Tomasz Czystanowski</u> : Monolithic subwavelength high-index-contrast grating VCSEL	14:30	<u>Till Mohr</u> : Terahertz homodyne self-mixing: A new spectroscopic technique - Basics and two-dimensional tomographic imaging applications	14:30 COST Action MP1204 MC Meeting	
15:00	<u>Cumali Sabah</u> : Fishnet Based Metamaterial Loaded THz Patch Antenna	15:00	<u>Artur Broda</u> : Experimental investigation on multi-wavelengths generation in Vertical External Cavity Surface-Emitting Laser	15:00	<u>Antonello Andreone</u> : Dispersion of carbon nanotubes in melt compounded polypropylene based composites investigated by THz spectroscopy		
15:20	<u>Markku Vainio</u> : Mid-Infrared Frequency Comb Generation by Cascaded Quadratic Optical Nonlinearities	15:20	<u>Marian Marciniak</u> : Optimal 1D microcavity for THz emission from optically pumped GaP layer: numerical analysis	15:20	<u>Marian Janek</u> : THz-TDS investigation of dielectric properties of CaZrO ₃		
15:40	<u>Kerstin Mader</u> : Mid-infrared Microscopic Imaging for the Characterisation of Intervertebral discs	15:40	<u>Traian Dascalu</u> : Intense THz pulses for THz pump – THz probe experiments	15:40	<u>Á. Rubén Criado</u> : Photonic-based generation of ultra-pure THz radiation		
16:00	Coffee Break	16:00	Coffee Break	16:00	Coffee Break		
16:30	Poster Session	16:30	<u>Yauhen Baravets</u> : Comparison of tunable narrow-band CW mid-IR generators based on the difference frequency generation in KTP and KTA crystals	16:30	<u>Vedat Ali Özkan</u> : Compressive Sensing Imaging and Image Fusion at sub-THz frequency in Transmission Mode	16:30 COST Action MP1204 MC Meeting	
-		16:50	<u>Leonardo Viti</u> : THz detection in Topological Insulator Field Effect Transistor	16:50	<u>Hakan Altan</u> : Detection of Far-Infrared Radiation using Glow Discharge Detectors (GDDs)		
18:00		17:10	<u>Vladimir Vaks</u> : Multifrequency high precise spectroscopy of biological tissues	17:10	<u>Hakan Altan</u> : Rapid-Scan Fiber-Integrated Terahertz Spectrometer for Time-Resolved Measurements		
		17:30	<u>Mauro Pereira</u> : Progress in Microscopic Theory of TERA-MIR Semiconductor Materials and Optics	17:30	<u>Irina Khromova /Oleg Mitrofanov</u> : Spectroscopy of Mie resonances in single TiO ₂ microspheres		
		19:00	Conference Dinner	17:50	Closing Remarks		Departure

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Poster Session

Poster Number	Author	Title
P01	Filip Kadlec	Achieving a negative refractive index in arrays of dielectric rods
P02	Piotr I. Karbownik	Mirror coatings for InGaAs/InAlAs/InP mid-IR QCL
P03	Albert Ratajczak	Optimization of MBE growth of InSb on semi-insulating GaAs substrate for mid-wavelength infrared detectors
P04	Yasemin Demirhan	A comparative study of ITO, Ti and Cu metal mesh resonant filters for THz applications
P05	Krzysztof Czuba	High temperature operation of Mid-IR type-II InAs/GaSb superlattice photodiodes
P06	Hakan Alaboz	High TCR DC Sputtered VO _x Films for THz Bolometer Applications
P07	Asaf Şahin	Varying Temperature Surface Reflection and its Effect on the Indoor Terahertz Wireless Communications
P08	Jarosław Jureńczyk	Selected processing aspects of MWIR detectors based on antimonide type II superlattices
P09	Jelena Radovanovic	Influence of Carrier Diffusion on RNGH Instabilities in Semiconductor Lasers
P10	Michał Kozub	Spectroscopic characterization of highly Si-doped InAs layers in terahertz emitters
P11	Andres Udál	Development of the software tools for simulation of quantum well media for radiation amplification in MIR and THz regions
P12	Dominika Urbańczyk	Optical investigation of high contrast grating fabricated by focused-ion beam process
P13	Lilian Sirbu	LT-InP Film For Emod Technology For THz Applications
P14	Jakub Cajzl	Characterization and numerical modelling of holmium-doped optical fibers for fiber lasers at 2.1 µm
P15	Eduard Hulicius	AlSb/InAs _(1-x) Sbx/AlSb quantum wells used for the high temperature superlinear luminescence in the Near-Mid infrared region
P16	Marco Ribeiro	Electro-Mechanical Analysis of a THz Wireless Sensor for Structural Health Monitoring
P17	Mariusz Pluska	Focused Ion Beam (FIB) Post-Processing Impact on Properties of Coupled-Cavity Quantum Cascade Laser Structures
P18	Mariusz Pluska	Cathodoluminescence Studies and Focused Ion Beam (FIB) processing of photonic structures
P19	Helena Jelínková	Fe:ZnSe and Dy:PbGa ₂ S ₄ lasers generating radiation in the 4-5 µm spectral region
P20	Michal Jelínek	Cr:ZnSe laser generating at 2.3 µm pumped by Tm-fiber 1.94 µm laser
P21	Olga Diabina	Criogenic effects on cancer stem cells - can we monitor and manipulate them with THz radiation?

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Session Chairs

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09:30-11:00 Mauro Pereira	09:30-11:00 Christelle Kadlec	09:30-10:50 Gaetano Scamarcio
11:30-13:00 Roberto Morandotti	11:30-13:00 Anna Sitek	11:20-13:00 Shumin Wang
14:30-16:00 Hynek Němec	14:30-16:00 Anna Szerling	14:30-16:00 Arūnas Krotkus
	16:30-17:30 Marcin Motyka	16:30-17:30 Anna Wójcik-Jedlińska