Sun	nday Sept. 14 <sup>th</sup>	Monday Sept. 15 <sup>th</sup>		Tuesday Sept. 16th		Wednesday Sept. 17th		Thursday Sept. 18th		Friday Sept. 19th	
		Metamaterials and Metasurfaces for Spectroscopy		Advanced Spectroscopic Techniques		Bio-medical Applications - Sponsored by Project Brief		Integrated Silicon Photonics		Sensing for Security and Food Applications - Sponsored by project EVOQUE	
		09:00 - 09:15	Opening: V. Spagnolo, W. Whelan Curtin, L. Dong, S. Cristescu	09:00 - 09:30	J. Faist -Semiconductor quantum walk combs for spectroscopy and telecommunication applications	09:00 - 09:20	M. Sigrist - Laser-spectroscopic non-invasive glucose monitoring	09:00 - 09:30	C. Alonso Ramos - Subwavelength engineering of silicon photonics for nonlinear applications in the near-IR and mid IR	09:00 - 09:20	M. Giglio - Spectroscopic study of Volatile Organic Compounds for the assessment of coffee authenticity
		09:15 - 09:45	C. Sirtori- Metamaterial Enhanced Unipolar Quantum Optoelectronics	09:30 - 09:50	L. Gianfrani - Comb-linked cavity ring-down spectroscopy: probing ultra-weak absorption from the deep-ultraviolet to the mid-infrared	09:20 - 09:40	J. Jiang - Time domain near infrared spectroscopy and tomography for biomedical applications	09:30 - 09:50	D. Marris-Morini - Graded index Silicon-Germanium photonics circuits for the mid-infrared spectral range	09:20 - 09:35	Y.Lin - Time-resolved gas detection using mid- infrared upconversion spectroscopy
		09:45 - 10:05	M. Belkin - Tunable continuous-wave 1-11 THz light sources based on difference-frequency mixing in intersubband polaritonic metasurfaces	09:50 - 10:10	S. Borri - Intracavity cantilever-based photoacoustic sensors: exploring unconventional regimes bringing together sensitivity and resolution	09:40 - 10:00	U. Willer- Towards tactile sensing by use of a flexible polymer foil with masklessly processed waveguides	09:50 - 10:10	G. Mashanovich - Silicon Photonics for mid-IR Sensing	09:35 - 9:50	L. Dreier - Sensitivity of a remote mid-infrared spectroscopy system for detecting traces of explosives
		10:05 - 10:20	A. Vorobev - Metasurfaces for the Mid-Infrared Spectroscopy Application	10:10 - 10:25	D. Pinto - Quantum Walk Comb FM Spectroscopy	10:00 - 10:15	F. Sfregola- Full-Domain 3D Digital Twin for SSAW Devices: Advancing Microfluidics and Sensing for One-Health	10:10 - 10:25	J. Jágerská- On-chip Waveguide Sensor Module for Precision MIR Spectroscopy	9:50 - 10:05	M. Olivieri- Dual-Gas QEPAS based sensor for simultaneous detection of methane isotopologues
		10:20 - 10:35	<b>G. Piscopo-</b> Mid-IR Spatial Light Modulation Using Germanium Metamaterials	10:205 - 10:40	L. A. Mongelli - Development of a novel GC-QEPAS sensing system for Volatile Organic Compounds detection	10:15 - 10:30	A. Brunetti - Interpretable EEG Analysis of     Neurodegenerative Diseases for Precision     Medicine Applications	10:25 - 10:40	J. Viljanen - Suspended Waveguide Enhanced Raman Spectroscopy for Trace Molecule Sensing	10:05 - 10:20	C. Sun - Multigas simultaneous detection based on photoacoustic spectroscopy technology
		10:40 - 11:00	Coffee Break	10:40 - 11:00	Coffee Break	10:40 - 11:00	Coffee Break	10:40 - 11:00	Coffee Break	10:40 - 11:00	Coffee Break
		Novel Infrared Sour		Photothe	ermal and Photoacoustic Spectroscopy	Breath A	nalysis - Sponsored by Project D3- 4Health		Industrial Applications	Spectros	scopy for air pollutants detection - Sponsored by MAECI
		11:00 - 11:20	P. De Natale- Shaping Photon Statistics in Mid- Infrared Cascade Lasers	11:00 - 11:20	W. Ren - Dual-Comb Photothermal and Photoacoustic Spectroscopy	11:00 - 11:20	K.S. Maiti- Limits and prospects of infrared spectroscopy of breath for early diagnosis of asymptomatic diseases	11:00 - 11:15	L. Poletto- Hydrogen detection via Raman-based sensor	11:00 - 11:20	W. Chen - Remote sensing of vertical distribution of greenhouse gases in the atmospheric column using laser heterodyne radiometer
		11:20 - 11:35	R. De Palo - Laser-textured Quartz-Tuning-Forks as infrared photodetector	11:20 - 11:40	R. Li Voti - NDT by Photoacoustic and Photothermal Techniques: Recent Advances and Perspectives	11:20 - 11:40	A. Vicet- Photoacoustics for breath analysis: sources and setups. Preliminary demonstration on cardiovascular diagnosis	11:15 - 11:30	A. Elefante - Real-World QEPAS Measurements in Volcanic Environments: A Case Study at the Campi Flegrei	11:20 - 11:40	B. Tuzson- The Sky's the Limit: Compact Trace Gas Sensors for Airborne Explorations
		11:35 - 11:50	A.P. Cantatore- Lithium Niobate Tuning Forks as piezoelectric transducers in Infrared Spectroscopy for gas sensing	11:40 - 12:00	B. Lendl- Mid-IR photothermal spectroscopy for liquid sensing	11:40 - 12:00	A. Picciariello - Diagnosis of colorectal cancer by the analysis of volatile organic compounds in the exhaled breath	11:30 - 11:45	MCQ - G. Canuti - All-in-one Gas mixer and pressure controlling system for spectroscopy	11:40 - 11:55	H. Abe - Laser-wavelength-tuned CRDS for real-time measurement of trace gas
		11:50 - 12:05	A. de Cerdeira Oliveira - Ge-on-Si bias-tunable dual- band photodetector for solvent recognition	12:00 - 12:20	W. Whelan Curtin-Integrated Photothermal Spectroscopy Systems: A Path Toward Mass Production using Semiconductor Processes	12:00 - 12:15	N. Ardito -Quartz-Enhanced Photoacoustic Sensor for Real Time and In-line Detection of Methane in Exhaled Breath	11:45 - 12:00	NANOPLUS - R. Weih - Long Wavelength Cascade Laser Technology for Sensing Applications	11:55 - 12:10	T.D. Schmitt - An open-path observatory for greenhouse gases using dual comb spectroscopy
		12:05 - 12:20	F. Pages- New capacitive MEMS design for photoacoustic gas sensing	12:20 - 12:35	T. Strahl- How to use a tunable laser and a gas filter cell for photoacoustic signal generation	12:15 - 12:30	A. Fadia-Development and Optimization of Photo- Acoustic sensors based on multi pass QEPAS for medical applications	12:00 - 12:15	ETG - F. Manassero - TDL,ICL,QCL Qepas gas analyser	12:10 - 12:25	H. Miller- Laser Heterodyne Radiometry: Applications from Solar Occultation to Wildfire Characterization
		12:20 - 12:35	J. Pelini - Exploiting unconventional silicon-based Micro-Electro-Mechanical systems for high-sensitivity cantilever-enhanced photoacoustic spectroscopy	12:35 - 12:50	J.P. Waclawek - Towards Photonic Integration: Trace Gas Sensing by Balanced-Detection Interferometric Cavity- Assisted Photothermal Spectroscopy (ICAPS)	12:30 - 12:45	L. Nappa -Advancing Healthcare: The Role of IR- D34Health Infrastructure	12:15 - 12:30	C. Fratini - Realization of an automatic waste material recognition system for waste recycling	12:25-12:40	G. Stiefvater - Assessment of N2O emissions from soil using a portable photoacoustic spectroscopy system
		12:50 - 14:00	Lunch	12:50 - 14:00	Lunch	12:50 - 14:00	Lunch	12:50 - 14:00	Lunch	12:50 - 14:00	Lunch
		Editeri							======		
	PARTICIPANTS ARRIVAL FROM AIRPORTS	Opti	Optical Sensing and Spectroscopy			Quartz and Cantilever-Enhanced Photoacoustic Spectroscopy					
		14:30 - 14:50	<b>R. Krebbers</b> - Spectroscopic applications of novel ultra-broadband, mid-infrared IDFG-based sources		POSTER SESSION	14:30 - 14:50	P. Patimisco- Real time monitoring of N2O and CO emissions from vehicles using a Quartz-Enhanced Photoacoustic sensor	14.30-19.00	SOCIAL ACTIVITY 14-30 -1	14-30 -19.00	PARTICIPANTS TRANSPORTATION TO AIRPORTS
		14:50 - 15:10	F. Wang- Multidimensional optical information detection			14:50 - 15:10	M. Wolff- QEPAS Analyzer for Solids and Liquids				
14.30 - 18.00		15:10 - 15:25	D. Barberio- Raman spectroscopy for Clostridia produced hydrogen detection in milk	14.30-16.30		15:10 - 15:25	C. Twomey- PPB-level Detection of Methane using Dielectric Coated Side-polished Fibers with Quartz- enhanced Photoacoustic Spectroscopy				
		15:25 - 15:40	H. Fei - Topological ring resonator for refractive index sensing at telecommunication wavelength			15:25 - 15:40	M.L. Llata- Implementation and calibration of an in- situ sensor for isotopic monitoring of atmospheric CO2 based on QEPAS				
		15:40 - 15:55	E. Petronijevic - Photo-acoustics meets nanoplasmonics: widely tunable photo-acoustic spectroscopy on commercial nanostructured samples			15:40 - 15:55	M. Duquesnoy - Quartz enhanced photoacoustic gas cell with optical multi-pass for detection of broad-spectrum gas molecules				
		15:55 - 16:10	C. Birot - Wavelength Modulation Spectroscopy for the study of nitrogen oxide concentration after electric discharges simulating lightning			15:55 - 16:10	O. Bonilla- Characterization of a Multi-Pass Circular Cell using Photoacoustic Spectroscopy				
		16:10 - 16:25	X. Mao - Reconfiguring the Order of Exceptional Points in a Scalable High-order Anti-parity-time Symmetric System								
18.00-19.30 19.30-21-00	DINNER	19.30-21-00	DINNER	19.30-21-00	DINNER	19.30-21-00	DINNER	19.30-21-00	SOCIAL DINNER		