



CES

Cavity Enhanced Spectroscopy

2022

Tuesday, June 14 th		
12.00	Registration	
13.00	Lunch	
14.00	CES2022 opening	Marco Marangoni
SUMMER SCHOOL		
<i>Chair: Marco Marangoni</i>		
14.10	Accurate cavity-enhanced spectroscopy of molecules with coherent light	Adam J. Fleisher
14.55	Cavity-enhanced optical frequency comb spectroscopy	Lucile Rutkowski
15.40	Applications of Cavity Enhanced Spectroscopy to Atmospheric Field Measurements and Aircraft Research	Steven S. Brown
16.25	Coffee break	
16.45	High Finesse Mirror Design, Fabrication and Characterization	Oliver H. Heckl
17.30	Optical Microcavities, a Low-Q Introduction	Randall Goldsmith
19.45	Dinner	

Wednesday, June 15 th		
<i>Chair: David Long</i>		
9.00	Cavity-enhanced spectroscopy of molecules with sub-kHz accuracy	Shui-Ming Hu
9.35	Cavity-enhanced absorption and dispersion Doppler-free saturation spectroscopy	Szymon Wójtewicz
10.00	Comb coherence-transfer and high accuracy saturated cavity ring-down saturation spectroscopy	Daniele Romanini
10.25	Resonance enhanced two-photon spectroscopy of nitrous oxide using a frequency-locked quantum cascade laser	Adam J. Fleisher
10.50	Coffee break	
<i>Chair: Daniele Romanini</i>		
11.10	Cavity-enhanced field-resolved spectroscopy	Ioachim Pupeza
11.45	A breath-by-breath, real-time acetone sensor based on cavity-enhanced laser-induced fluorescence	Eckart Wrede
12.10	Real-world applications of Saturated-Absorption Cavity Ring-down (SCAR) spectroscopy	Davide Mazzotti
12.35	The Miniature Airborne Cavity Enhanced Spectrometer (mACES) for sensitive NO ₂ detection on UAV platforms	Caroline Womack
13.00	Lunch	
<i>Chair: Kevin Lehmann</i>		
14.10	Applications of Cavity-based Polarimetry	Peter Rakitzis
14.45	Comb-assisted cavity ring-down spectroscopy for ultra-sensitive traceable measurements of water vapour in ultra-high purity gases	Eugenio Fasci
15.10	The spatial distribution of species in an atmospheric pressure plasma jet investigated by cw cavity ring-down spectroscopy	Jean-Pierre van Helden
15.35	Ultra-high sensitivity and ultra-wide dynamic range gas detection based on photoacoustic spectroscopy	Zhen Wang
16.00	Coffee break	
<i>Chair Peter Rakitzis</i>		
16.20	Molecules in Optical Cavities: Precision Spectroscopy & Strong Light-Matter Interactions	Marissa Weichman
16.55	Mode-resolved Mid-Infrared Optical Frequency Comb Spectroscopy Using an Air-spaced VIPA without Optical Cavity Filtering	Ibrahim sadiq
17.20	High-accuracy line positions of N ₂ O, CH ₄ and H ₂ CO around 8 μm from optical frequency comb Fourier transform spectroscopy	Adrian Hjältén
17.45	NANOPLUS	CES2022 sponsor
17.55	IRSWEEP	CES2022 sponsor
19.00	Dinner	
19.45	Poster session	

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Thursday, June 16 th		
<i>Chair Lucile Rutkowski</i>		
9.00	Understanding ultrafast observables via broadband cavity-enhanced ultrafast spectroscopy in jet-cooled molecules and clusters	Thomas Allison
9.35	High finesse Fourier transform cavity ring-down spectroscopy with an optical frequency comb	Romain Dubroeuq
10.00	Electro-optical Dual-Comb Cavity Ring-Down, Mode-Width and Mode-Dispersion Spectroscopy	Dominik Charczun
10.25	Cavity-enhanced double-resonance spectroscopy of methane using a frequency comb probe	Vinicius Silva de Oliveira
10.50	Coffee break	
<i>Chair Carlos Saavedra</i>		
11.10	Microbubble resonators as enhanced platforms for thermometry and flow cytometry	Silvia Soria Huguet
11.45	Optomechanical devices for high accuracy acceleration sensing	David Long
12.10	High-finesse optical cavity length adjustment at cryogenic temperatures	Marcin Makowski
12.35	Designing the new CES meeting	Round table
13.00	Lunch	
<i>Chair Oliver H. Heckl</i>		
14.10	Cavity-enhanced vs Coherent Raman metrology of H ₂	Marco Lamperti
14.45	Infrared off-axis cavity-enhanced absorption spectroscopy of molecular hydrogen	Philip Martin
15.10	Fast breath analysis by OF-CEAS: clinical studies for lung transplantation	Daniele Romanini
16.00	Touristic excursion: Bellagio and Villa Melzi d'Eril	
19.45	Gala dinner	

Friday, June 17 th		
<i>Chair Hans-Peter Loock</i>		
9.00	Spectroscopy and control of individual erbium dopants in optical resonators	Andreas Reiserer
9.35	Broadband nonlinear cavity ringdown spectroscopy	Maximilian Högner
10.00	Microcavity-enhanced investigation of nanoparticle dynamics	Shalom Palkhivala
10.25	Single-Molecule Thermo-Optoplasmonic Sensing of Enzymes	Nikita Toropov
10.50	Coffee break	
<i>Chair Randall Goldsmith</i>		
11.10	Fiber Fabry-Pérot micro-resonators for molecular Oxygen A-band determination using modulation spectroscopy.	Carlos Saavedra
11.45	A Silica Rib Microdisk for Visible Comb Spectroscopy	Shahin Honari
12.10	Adding Quantum Confinement to Cavity Molecular Polaritons	Zimo Yang
12.35	Fiber optic strain sensing with π -shifted Fiber Bragg Gratings	Hans-Peter Loock
13.00	<i>Greetings and closing remarks</i>	Marco Marangoni
13.10	Lunch	