	Tuesday 23/08/2022 School Chair. G Scalari		Wednesday 24/08/2022 School Chair: D. Burghoff, M. Beck, J. Faist, L. Emmenegger (TBC)		Thursday 25/08/2022 Session I - Detectors and ISB devices Chair: C. Unterrainer, Q. Wang (TBC)		Friday 26/08/2022 Session II - THz lasers NATO workshop Session III - Integrated Photonics Chair: A. Tredicucci, D. Botez, S. Bvarbieri, M. Bertrand (TBC)		Saturday 27/08/2022 Session IV - THz QCLs combs Session V - Mid-IR QCLs combs Chair: B. Williams, M. Vitiello (TBC)		Sunday 28/08/2022 Session V - Mid-IR QCLs combs Session VI - Spectroscopy and applications Chair. B Schwarz, R. Teissier (TBC)
08:00		08:00		08:00		08:00		08:00		08:00	
08:15		08:15		08:15		08:15		08:15		08:15	
08:30		08:30		08:30		08:30		08:30	Tutorial M. Vitiello Quantum cascade resonators as powerful tools for near field quantum nanoscopy in the far infrared	08:30	
08:45		08:45		08:45		08:45	Keynote C. Benea-Chelmus On-chip non-linear THz emission and detection	08:45		08:45	
09:00		09:00	Tutorial B. Schwarz Mid-IR semiconductor laser frequency combs: from physics to devices	09:00		09:00		09:00		09:00	Keynote I. Kaminer Quantum Optics with free electrons
09:15		09:15		09:15		09:15		09:15	*Invited:* P. Micheletti THz frequency combs from dispersion-compensated antenna-coupled ring quantum cascade lasers	09:15	
09:30		09:30		09:30		09:30	*Invited (Remote):* K. Wang Terahertz quantum cascade lasers with orbital angular momentum	09:30		09:30	
09:45		09:45		09:45		09:45		09:45	X. Qi - Optical Frequency Combs in Fabry-Perot Terahertz Quantum Cascade Lasers	09:45	*Invited:* P. Täschler Short and ultrashort pulse generation from quantum cascade lasers
10:00		10:00	**Coffee Break**	10:00		10:00	M. Salih - High Power Density Emission from Terahertz Quantum Cascade Lasers	10:00	U. Senica - Broadband active and passive photonics with planarized THz quantum cascade lasers	10:00	
10:15		10:15		10:15	Bus to Monte Verità **Sharp departure at 08:15!**	10:15	K. Unterrainer - Silicon Integrated Terahertz Quantum Cascade Ring Laser Frequency Comb	10:15	**Coffee Break**	10:15	**Coffee Break**
10:30		10:30		10:30		10:30	**Coffee Break**	10:30		10:30	
10:45		10:45	Tutorial Z. Wasilewski	10:45		10:45		10:45	*Invited:* B. Williams RF-injection induced multimoding in THz QC-VECSELs	10:45	Tutorial M. Piccardo Tutorial on cavity solitons
11:00		11:00	MBE for THz - the quest for compact and powerful room temperature emitters	11:00		11:00	M. Mastrangelo - Optimization of patch-antenna metamaterial for the realization of quantum cascade laser arrays	11:00		11:00	
11:15		11:15		11:15		11:15	*Invited:* Q. J. Wang Electrically pumped topological quantum cascade lasers with topological protection and polarization control	11:15	G. Scalari - Sub-comb formation in strongly RF driven broadband THz Quantum Cascade Lasers	11:15	
11:30		11:30	*Invited:* J.-B. Rodriguez Cascade Lasers epitaxially grown on Si substrates	11:30		11:30		11:30	*Invited:* D. Kazakov Integrated active waveguides enable coherent control of ring quantum cascade laser frequency combs	11:30	*Invited:* P. Jouy High resolution quantum cascade laser dual-comb spectroscopy in step-sweep mode
11:45		11:45		11:45		11:45	S. Kondawar - Power-locking of a 3.5-THz quantum-cascade laser using an integrated photonic circuit	11:45		11:45	
12:00		12:00		12:00		12:00	R. Mac - Effects of nonparabolicity and interband interaction on InAs/AlSb based QCL: using an 8x8 k·p method	12:00	F. Pilat - Measuring the spectrally resolved Linewidth Enhancement Factor of a Laser Frequency Comb	12:00	S. Markmann - Rotational Fourier-Transform Infrared spectroscopy with QCL frequency comb
12:15		12:15		12:15		12:15	S. Dhillon - Field-resolved high-order nonlinearities and ultrafast dynamics in a terahertz quantum cascade laser	12:15	B. Schneider - RF-Injection Control of Quantum Cascade Lasers	12:15	S.Blaser - High Performance Quantum Cascade Laser Frequency Combs at 6.0 and 5.3 µm
12:30		12:30	Lunch @ Fusion (Chemistry Mensa)	12:30		12:30		12:30		12:30	*Invited:* R. Weih Latest news and challenges in commercial ICLs/QCLs for real life application
12:45		12:45		12:45		12:45		12:45		12:45	
13:00		13:00		13:00		13:00		13:00		13:00	**Final Remarks and Closing**
13:15		13:15		13:15	Lunch @ Monte Verità	13:15	Lunch @ Monte Verità	13:15		13:15	
13:30		13:30	Keynote H. Altug Mid-IR Metasurfaces for Biosensing and Imaging	13:30		13:30		13:30		13:30	
13:45		13:45		13:45		13:45		13:45		13:45	
14:00		14:00		14:00		14:00		14:00		14:00	
14:15		14:15		14:15	Welcome Speach by Monte Verità team	14:15		14:15		14:15	
14:30	**Opening**	14:30	Tutorial L. Emmenegger	14:30	Tutorial F. Cappelli	14:30	*Invited:* J.-M. Manceau Intersubband polariton-polariton stimulated scattering in a dispersive microcavity	14:30	**12:30 - 14:30** Lunch @ Monte Verità	14:30	
14:45	Tutorial R. Teissier From research to commercialization and applications of InAs-based long-wavelength QCLs	14:45	Mid-IR laser spectroscopy for environmental trace-gas sensing	14:45	Quantum cascade laser frequency combs: metrological properties and quantum optical investigation	14:45		14:45		14:45	
15:00		15:00		15:00		15:00	M. Haider - A symbolic computation framework for Bosonic operators: Modeling quantum features in QCL frequency combs	15:00		15:00	
15:15		15:15	**Coffee Break**	15:15	G. Marschick - High performance quantum cascade detectors for long-wave infrared detection	15:15	B. Limbacher - Optically Controlled Quantum Cascade Random Lasers	15:15		15:15	
15:30		15:30		15:30	S. Barbieri - Frequency response of patch-array QWIP photodetectors up to 220 GHz via mid-infrared photomixing	15:30	A. Wacker - Optimising THz Quantum Cascade Lasers	15:30		15:30	
15:45	**Coffee Break**	15:45	M. David - Broadband mid-infrared spectroscopy employing quantum cascade optoelectronics and integrated plasmonic	15:45	P. Micheletti - Ultrafast Detection of Terahertz Radiation with Regenerative Terahertz Quantum Detector	15:45	L. Vicarelli - Vertical emitting terahertz microcavity quantum cascade lasers with high continuous wave efficiency	15:45		15:45	
16:00		16:00	B. Martin - QCL-based Frequency-modulated continuous-wave LiDAR at 4.6 µm	16:00	**Coffee Break**	16:00	**Coffee Break**	16:00		16:00	
16:15		16:15	S. Zaminga - Chaos Synchronization in the Long Wave Infrared Thermal Atmospheric Window	16:15		16:15		16:15		16:15	
16:30	Tutorial J. F. Lampin THz molecular lasers	16:30	D. Kavungal - Artificial intelligence aided plasmonic SEIRA as a tool for resolving complex biomolecular interactions	16:30	V. Trinité - Quantum cascade detectors operating in the strong light-matter coupling regime	16:30	*Invited:* G. Mashanovich Silicon photonics integrated circuits for mid-infrared sensing	16:30	**15:00 - 19:00** Excursion to Brisago Island Visit of the Botanical Garden	16:30	Thank you for your participation!
16:45		16:45		16:45	T. Venanzi - Effect of doping and temperature on the THz intersubband absorption in parabolic SiGe quantum wells at high x	16:45		16:45		16:45	
17:00		17:00	*Invited Remote:* R.T. Chen Mid-IR Integrated Photonics for Sensing and Communications	17:00	J.-M. Manceau - Mid-Infrared Saturable Absorbers with Ultra-Low Saturation Intensities	17:00	D. Ren - High-quality native germanium microresonators pumped by quantum cascade lasers	17:00		17:00	
17:15		17:15		17:15		17:15	K. Zhang - Mid-infrared Microring Resonators and Wavelength Divison Multiplexers on an InP Platform	17:15		17:15	
17:30		17:30		17:30		17:30		17:30		17:30	
17:45		17:45		17:45		17:45		17:45		17:45	
18:00		18:00		18:00		18:00		18:00		18:00	
18:15	Welcome Reception @ Bella Vista	18:15	Lab visit	18:15	Poster Session I Welcome Reception	18:15	Poster Session II	18:15		18:15	
18:30		18:30		18:30		18:30		18:30		18:30	
18:45		18:45		18:45		18:45		18:45		18:45	
19:00		19:00		19:00		19:00		19:00	Apéro Conference Dinner @ Monte Verità Awards & animations	19:00	
19:15		19:15	Free Evening	19:15	Free Evening	19:15		19:15		19:15	
19:30		19:30		19:30		19:30	Dinner @ Monte Verità	19:30		19:30	
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