

Joint ITN CELTA & TeraApp Summer School
29th International Travelling Summer School on Microwaves and Lightwaves

	Sa 13.7.	Su 14.7.	Mo 15.7.	Tu 16.7.	We 17.7.	Th 18.7.	Fr 19.7.
10:30 - 8:30		Invited talk - Vladimir Vaks Biomedical spectroscopy	Invited talk - Rashaunda Henderson Passive mmW components	Invited talk - Guillaume Ducournau Photonics communications	Invited talk - Masahiro Asada THz RTDs	Invited talk - Wojciech Knap Non-standard THz devices	Project work (1 hour)
		THz photonics, electronics & spectroscopy Acedo Gallardo / Preu	THz imaging and plasmonics Penirschke / Al-Daffaie	Photonics communications De Dios Fernandez / Lazar	Resonant Tunneling Diodes (RTDs) Feiginov / Wernersson	Non-standard THz materials, devices, concepts Lisauskas / Roskos	Project presentation
30 min		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
13:00 - 11:00		THz photonics, electronics & technology Weimann / Krozer	THz imaging and plasmonics Escorcía Carranza / Sheridan	Diversity at work Prah / Linz	RTDs, CNTs and other nanodevices Höfling / Figueiredo / Lyubchenko	Modeling & measurements Oriols / Haisch / Hoffmann	Project presentation
		IP protection and spin-off Weber-Bruls / Schöller	Lunch 12:15 - 13:15	Materials & simulations Kusserow / Raida			Closing ceremony & awards
14:30 - 13:00	Arrival and registration with small refreshments	Lunch	Transfer to Darmstadt	Lunch	Lunch (leaving at 14:00 strict)	Lunch	Lunch and departure
				CENTERA meeting			
16:30 - 14:30	open to public	Opening ceremony Prof. Dr. Krozer	Passport or ID card mandatory!	Materials Naftaly / Yashchyshyn / Hartnagel	Guided city tour	Project work & Company training R&S + ACST + Optica + Huawei	
		Lecture-THz electronics & photonics: Current development & research Prof. Dr. Monroy					
30 min		Campus tour Group 1	Scientific visit European Space Agency	Coffee break	Transfer to Main	Coffee break	
19:00 - 17:00	Presentation of student work			Prof. Meeting	Project work / Prof. meeting	Boat trip	Project work & Company training R&S + ACST + Optica + Huawei
		Coffee break	Project work				
21:00 - 19:00	Social Dinner - BBQ at Campus Westend	Free evening - see our dinner suggestions in Frankfurt city	Social Dinner in Darmstadt <i>Braustübl</i>	Dinner of young scientists <i>Aman restaurant</i>	Local Dinner <i>Paulaner Platzhirsch (Rudererdorf)</i>	Free evening - see our dinner suggestions in Frankfurt city	
					River night walk home		

Scientific program

Invited talk	40 min
Lecture	30 min
Workshop/discussion	40 min

Date	Time	Session	Type	Presenter	Title of the talk	
Sun 14.7.	8:30 - 9:55	THz spectroscopy	Invited	Vladimir Vaks	Biomedical THz spectroscopy	
			1	Pablo Acedo Gallardo	THz spectroscopy for biomedical and clinical applications	
	9:55 - 10:30	THz photonics and electronics	2	Sasha Preu	Terahertz photomixer concepts: from material engineering to powerful devices	
			3	Nils Weimann	Compound semiconductor transistor technologies for THz applications	
	11:00 - 13:00	IP protection and spin-off	Workshop	4	Viktor Krozer	Terahertz electornics concepts
				Dorothee Weber-Bruls	Intellectual property (IP) protection in EU, USA, and China	
	14:30 - 16:30	mmW power amplifiers	5	Paolo Colantonio	Microwave and mm-wave solid-state power amplifiers	
6			Tom Keinicke Johansen	Millimeter-wave power amplifiers		
7			Giorgio Leuzzi	Linear and nonlinear stability analysis of power amplifiers		
Mo 15.7.	8:30 - 10:30	THz imaging and plasmonics	Invited	Rashaunda Henderson	Passive mm-wave components	
			8	Andreas Penirschke	Advanced THz detectors: Applications at mmW and THz frequencies for communication systems and particle accelerators	
	9		Shihab Al-Daffaie	Plasmonic enhancement in terahertz nanodevices		
	10		Ivonne Escorcia Carranza	CMOS terahertz imagers		
11:00 - 12:15		12	John T. Sheridan	Challenges for the imaging in THz field		
		Invited	Guillaume Ducournau	THz photonics communications		
Tue 16.7.	8:30 - 10:30	Photonics communications	13	Cristina de Dios Fernandez	Optical frequency combs: Fundamentals and applications	
			14	Josef Lazar	Time keeping in modern communications systems and in other applications	
	11:00 - 13:00	Diversity at work	Discussion	Maria Prah	Cultural and gender diversity	
		Materials & Simulation		Sarah Linz		
	14:30 - 16:30	Materials for THz	15	Thomas Kusserow	Properties of materials in the optical and THz range	
			16	Zbynek Raida	Optimization of high-frequency structures: Global and local approaches	
			17	Mira Naftaly	Materials for terahertz and microwave optics	
18			Yevhen Yashchyshyn	New opportunities in quasi-optical materials characterization in far infrared region		
19			Hans Hartnagel	THz generation by quantum cascade atructures based on new semiconductor materials		
We 17.7.	8:30 - 10:30	Resonant Tunneling Diodes	Invited	Masahiro Asada	Resonant-tunneling-diode THz sources and applications	
			20	Michael Feiginov	Resonant Tunneling Diodes (RTDs) at THz frequencies	
	11:00 - 12:45	RTDs, CNTs and other nanodevices	21	Lars-Erik Wernersson	Partially commercialised work on RTD-wavelet transmitter	
			22	Sven Höfling	Resonant tunneling diode photodetectors	
			23	José Figueiredo	Resonant tunnelling diode microwave-photonic circuits	
24	Dmitry Lyubchenko	Thin carbon nanotube layers for terahertz wave applications				
Th 18.7.	8:30 - 10:30	Non-standard THz materials, devices, concepts	Invited	Wojciech Knap	THz emission and detecion in diffrent topological phases of HgCdTe based structures	
			25	Alvydas Lisauskas	How to build a THz detector?	
	11:00 - 13:00	Modeling & measurements	26	Hartmut G. Roskos	Surface plasmon-polaritons studied by scattering-type SNOM	
			27	Xavier Oriols Pladevall	Modeling and simulation of quantum electron transport for THz electronics: Application to THz RTDs	
			28	Hansjoerg Haisch	Wafer-Level Opto-Electrical High Frequency and Polarization Resolved Spectral Measurements for Integrated Photonics	
29	Karel Hoffmann	Microwave vector measurement				