Apropos 17

Advanced Properties and Processes in Optoelectronic Materials and Systems
30 September – 1 October, 2020

Sattelite Event

Lithuania-Poland Workshop
on Physics and Technology

CONFERENCE PROGRAMME

Center for Physical Sciences and Technology (FTMC), Vilnius, Lithuania
Venue: FTMC at Sunrise Valley, Saulėtekio Ave. 3, Vilnius, Lithuania

30 September		
8:00-9:00		REGISTRATION
9:00-9:15		**CONFERENCE OPENING CEREMONY** **Gintaras Valušis** Director of Center for Physical Sciences and Technology Chair of Apropos 17 conference
9:15-10:35		**Section 1: Semiconductor nanostructures and advanced photonics systems** **Chair Prof. *Carlito Jr.Salonga Ponseca***
9:15-9:45	**Inv 1**	**Linas Minkevičius** *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Review of innovative diffractive elements for Terahertz imaging applications
9:45-10:15	**Inv2**	**Ramūnas Aleksiejūnas** *(Vilnius University, Lithuania)* Impact of alloy disorder induced localization on hole diffusion in highly excited c-plane and m-plane InGaN quantum wells
10:15-10:35	O1	Janusz Sadowski (*University of Warsaw, Institute of Physics, Warsaw, Poland, Linnaeus University, Sweden)* MoTe2 transition metal dichalcogenide grown by molecular beam epitaxy – polytypes, structural and electrical properties
10:35-11:00		**Coffee break**
11:00-13:00		**Section 2: Nano and Biophotonics** **Chair Dr. *Kaibo Zheng***
11:00-11:30	**Inv3**	**Šarūnas Meškinis** *(Kaunas University of Technology, Lithuania)* Direct synthesis of the graphene on Si(100) substrate for solar cell applications

11:30-12:00	**Inv4**	**Dovydas Banevičius** *(Vilnius University, Lithuania)* Naphthyridine-based deep-blue TADF OLEDs with low efficiency roll-off
12:00-12:20	O2	Rusnė Ivaškevičiūtė-Povilauskienė *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* All-optical modulation of graphene layers
12:20-12:40	O3	Lena Golubewa *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Raman spectroscopic investigation of multi-walled carbon nanotubes mediated neutrophil activation
12:40-13:00	O4	Adil Rehman (*Institute of High Pressure Physics, Warsaw, Poland*) Modulation of electrical and noise characteristics of carbon nanotubes based devices
13:00-14:00		**Lunch**
14:00-15:50		***Special session:*** **Ultrafast THz techniques** **Chair Dr.** ***Ignas Grigelionis***
14:00-14:30	**Inv5**	**Carlito S. Ponseca, Jr.** (*Linköping University, Sweden*) - Ultrafast transient spectroscopy of organic and hybrid solar cells
14:30-14:50	O5	Kaibo Zheng *(Lund University, Sweden, Technical University of Denmark, Danmark)* Ultrafast spectroscopy of Quantum dot solar cells
14:50-15:10	O6	Ričardas Norkus *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Terahertz emission from a bulk GaSe crystal excited by above-bandgap photons
15:10-15:30	O7	Daniil Pashnev *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Investigation of two-dimensional plasma resonances in grating-gated AlGaN/GaN heterostructures by terahertz time domain spectroscopy
15:30-15:50	O8	Marek Maciaszek (*University of Warsaw, Poland)* On the origin of the 4.1 eV luminescence in hexagonal boron nitride
15:50-16:15		**Coffee break**
16:15-18:20		**Section 1: Semiconductor nanostructures and advanced photonics systems** **Chair Prof.** ***Šarūnas Meškinis***
16:15-16:45	**Inv6**	**Tadas Malinauskas** *(Vilnius University, Lithuania)* Remote epitaxy of GaN via Graphene
16:45-17:05	O9	Ivan Yahniuk (*Institute of High Pressure Physics, Warsaw, Poland*) Temperature-& Pressure-induced transitions in HgTe QWs
17:05-17:20	O10	Roman M. Balagula *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Annealing-induced reduction of strain in GaAs/GaNAs core-shell nanowires
17:20-17:40	O11	Andrea Zelioli *(University of Modena, Italia)* GaInAs/GaAs Quantum Structures For Near Infrared Vertical-External-Cavity Surface-Emitting Lasers
17:40-18:00	O12	Simona Pūkienė *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* A3-B5 QW structures for IR range optoelectronic devices
18:00-19:30		**Poster session (18 posters)** **Coffee and Snaps**

1 October		
9:00-11:00		***Satellite Event:*** **Lithuanian Polish Workshop** **Chair Prof. *Janusz Sadowski***
9:00-9:10		**WORKSHOP OPENING CEREMONY** Ambassador Urszula Doroszewska, Embassy of Poland Jerzy Łusakowski (Chair from Poland)
9:10-9:35	**Inv7**	**Nerija Žurauskienė** *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Magnetoresistance Relaxation Phenomena in Nanostructured Lanthanum Manganite Films
9:35-10:00	**Inv8**	**Wojciech Pacuski** (*University of Warsaw, Poland)* Narrow excitonic lines and large-scale homogeneity of transition metal dichalcogenides grown by MBE on hBN
10:00-10:20	O13	Maksym Dub (*Institute of High Pressure Physics, Warsaw, Poland*) Graphene gate GaN/AlGaN field effects transistors for THz detection
10:20-10:40	O14	Maria Szoła (*Institute of High Pressure Physics, Warsaw, Poland*) THz magnetospectroscopy of HgCdTe bulk crystals with different Cd content
10:40-11:00	O15	Paweł Komorowski (*Warsaw University of Technology, Poland*) Machine learning enhanced design of diffractive optical elements
11:00-11:25		**Coffee break**
11:25-13:05		**Section 3: Ultrafast and THz phenomena** **Chair Dr. *Linas Minkevičius***
11:25-11:55	**Inv9**	**Alvydas Lisauskas** (*Vilnius University and Institute of High Pressure Physics, Warsaw, Poland)* THz detectors and sources fabricated with CMOS technologies
11:55-12:25	**Inv10**	**Guillaume Ducournau** *(Université Lille, France)* THz communications and advanced RF characterization enabled by THz photonics
12:25-12:45	O16	Dmytro B. But (*Institute of High Pressure Physics, Warsaw, Poland*) Antenna Characterization of Monolithically Integrated Detectors for 0.62 THz
12:45-13:05	O17	Domas Jokubauskis *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Phase contrast sub THz imaging and applications
13:05-14:00		**Lunch**
14:00-15:50		**Section 3: Ultrafast and THz phenomena** **Chair Prof. *Alvydas Lisauskas***
14:00-14:30	Inv11	**Vincas Tamošiūnas** *(Center for Physical Sciences and Technology, Vilnius, Vilnius University, Lithuania)* Reflectance spectra of selective emitter solar cells in terahertz and sub-terahertz ranges
14:30-14:50	O18	Dmitri V. Lioubtchenko (*KTH Royal Institute of Technology, Stockholm, Sweden)* Effect of lengths, diameters, and density of silver nanowire layers on terahertz conductivity

14:50-15:10	O19	Ieva Žičkienė *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Terahertz radiation induced by surface ballistic photogalvanic effect in GaAs LIPSS structures
15:10-15:30	O20	Pavlo Sai (*Institute of High Pressure Physics, Warsaw, Warsaw University of Technology, Poland*) AlGaN/GaN dual grating gate structures investigated in high magnetic field
15:30-15:50	O21	Vladislovas Čižas *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Fractional frequencies in microwave response of GaAs/AlGaAs superlattices
15:50-16:15		**Coffee break**
16:15-17:35		**Section 4: Organics for Optoelectronics** **Chair Dr. Prof. *Nerija Žurauskienė***
16:15-16:35	O22	**Yuri Svirko** *(University of Eastern Finland, Joensuu, Finland)* Light-induced currents and THz emission from graphene
16:35-16:55	O23	Ernesta Poceviciute *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Studies of Receptor and Its Ligand Interaction Using FRET and TIRF Microscopy
16:55-17:15	O24	Edvinas Navakauskas *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Structure determination of HEWL protein aggregates at liquid interfaces
17:15-17:35	O25	Wanessa Melo *(Center for Physical Sciences and Technology, Vilnius, Lithuania)* Antimicrobial photodynamic therapy: an alternative to overcome the biofilm resistance
17:40		**Closing Remarks**