

CONFERENCE DAY 1Wednesday July 6th 2022

Track	Name	Slot 105	Slot 110	Slot 115	Slot 120	Slot 125
	Room	08:45-10:00	10:30-12:00	12:00-12:30	14:00-15:30	16:00-17:30
T6	Keynote Talk 1 Aula Magna	WeAT6 Keynote Talk 1				
T7	Track T7 Cafeteria			WeCT7 Poster Session 1		
T1	Track T1 AA11; AB14; AA11		WeBT1 Advanced Nanostructures: Fabrication, Characterization, Simulation and Application Perspectives Oral Session (6)		WeDT1 Nanofabrication Oral Session (6)	WeET1 Nano-Optics Oral Session (6)
T2	Track T2 AA12; AA12; AA12		WeBT2 Quantum, Neuromorphic and Unconventional Computing Oral Session (6)		WeDT2 Nano-Acoustic Devices Oral Session (6)	WeET2 Nanoelectronics #2 Oral Session (6)
T3	Track T3 AB11; AB11; AB11		WeBT3 Nanophotonics and Nano-Optoelectronics Oral Session (6)		WeDT3 Nanomagnetics Oral Session (6)	WeET3 Processes and Materials Oral Session (6)
T4	Track T4 AB12; AB12; AB12		WeBT4 Nanorobotics and nanomanufacturing Oral Session (6)		WeDT4 Nanosensors and nanoactuators Oral Session (6)	WeET4 Nanofabrication #2 Oral Session (6)
T5	Track T5 AB14; AA11; AB14		WeBT5 Nano-Metrology and Characterization Oral Session (6)		WeDT5 Nano-Materials #2 Oral Session (6)	WeET5 Nanosensors and nanoactuators #2 Oral Session (6)
T8	Track T8 Aula Magna		WeBT8 Nano-Materials Oral Session (6)		WeDT8 Nanoelectronics Oral Session (6)	WeET8 Modeling and Simulation Oral Session (6)

CONFERENCE DAY 2Thursday July 7th 2022

Track	Name	Slot 100 08:45-10:00	Slot 105 10:30-12:00	Slot 110 12:00-12:30	Slot 115 14:00-15:00	Slot 120 15:00-16:30	Slot 125 17:00-18:30
T6	Track T6 Aula Magna	ThAT6 Keynote Talk 2					
	Track T7 Cafeteria			ThCT7 Poster Session 2			
T8	Track T8 Aula Magna				ThFT8 Plenary Talk 1		
T1	Track T1 AA11; AA11; AA11		ThBT1 Nano-Materials #3 Oral Session (6)			ThDT1 Nano-Materials #4 Oral Session (6)	ThET1 Infrared photodetection and intelligent perception Oral Session (7)
T2	Track T2 AA12; AA12; AA12		ThBT2 Modeling and Simulation #2 Oral Session (6)			ThDT2 Modeling and Simulation #3 Oral Session (6)	ThET2 Nano Energy Oral Session (6)
T3	Track T3 AB11; AB11; AB11		ThBT3 Quantum, Neuromorphic and Unconventional Computing #2 Oral Session (6)			ThDT3 Unconventional Computing: new Challenges for Nanotechnology Oral Session (6)	ThET3 Plasma-free anisotropic etching of semiconductors: MacEtch and related nanotechnology Oral Session (6)
T4	Track T4 AB12; AB12; AB12		ThBT4 First Principles Modeling and Simulation of Plasma Processes for Atomic Scale Precision Semiconductor Device Fabrication: Opportunities and Challenges Oral Session (6)			ThDT4 First Principles Modeling and Simulation of Plasma Processes for Atomic Scale Precision Semiconductor Device Fabrication: Opportunities and Challenges (Code 14y75) #2 Oral Session (6)	ThET4 Processes and Materials Oral Session (6)
T5	Track T5 AB14; AB14; AB14		ThBT5 The impact of 2D nanomaterials on green high-frequency technology Oral Session (5)			ThDT5 Nanofabrication for Quantum Technologies Oral Session (5)	ThET5 Nanofabrication for Quantum Technologies (Code rgw2w) #2 Oral Session (4)
T9	Track T9 Aula Magna		ThBT9 Nano-Biomedicine Oral Session (6)			ThDT9 Nano-Biomedicine #2 Oral Session (6)	ThET9 Nano-Biomedicine #3 Oral Session (6)

CONFERENCE DAY 3Friday July 8th 2022

Track	Name	Slot 105	Slot 110	Slot 115	Slot 120	Slot 125
	Room	08:45-10:00	10:30-12:30	14:00-14:30	14:30-16:30	16:30-18:30
T6	Track T6 Aula Magna	FrAT6 Keynote Talk 3 Andrei Vladimirescu Oral Session				
T7	Track T7 Cafeteria			FrCT7 Poster Session 3 Poster Session (15)		
T1	Track T1 Aula Magna; AA02; AA02		FrBT1 Nano-Biomedicine #4 Oral Session (6)		FrDT1 State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era (Code 6g82g) #2 Oral Session (6)	FrET1 State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era (Code 6g82g) #3 Oral Session (6)
T2	Track T2 AA23; AB04; AB04		FrBT2 State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era Oral Session (6)		FrDT2 Special Session on Internet of Nanorobotic Things (IoNT) for Nano-Biomedicine Oral Session (6)	FrET2
T3	Track T3 AA24; AB09; AB09		FrBT3 Emerging Technologies: From Theory to Large-scale Realization Challenges of Quantum Computers Oral Session (5)		FrDT3 IEEE NTC MENED program #2 Oral Session	FrET3 IEEE NTC MENED program #3 Oral Session
T4	Track T4 AA26		FrBT4 IEEE NTC MENED program Oral Session			

CONFERENCE DAY 1: Detailed ProgramWednesday July 6th 2022

WeBT1		Wednesday, July 6, 2022, 10:30-12:00, Track T1, AA11		
Advanced Nanostructures: Fabrication, Characterization, Simulation and Application Perspectives				Oral Session
Organizer: Fomin, Vladimir M. (108625)		Leibniz Institute for Solid State and Materials Research (IFW) D		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Topological transitions in 3D superconductor nanoarchitectures	Fomin, Vladimir M. (Leibniz Institute for Solid State and Materials Research (IFW) Dresden)
2	10:45-11:00	Oral presentation	Curvilinear Antiferromagnets for Spintronics Applications	Pylypovskyi, Oleksandr (Helmholtz-Zentrum Dresden-Rossendorf e.V.)
3	11:00-11:15	Oral presentation	Topological Modes in Superconductor/Ferromagnet 3D Nanoarchitectures	Dobrovolskiy, Oleksandr (University of Vienna)
4	11:15-11:30	Oral presentation	Ultradense nanostructures in copper-oxide superconductors and their magneto-transport properties	Lang, Wolfgang (University of Vienna) Aichner, Bernd (Faculty of Physics, University of Vienna)
5	11:30-11:45	Oral presentation	Nanostructured microtube cavities for optical coupling and lasing	Ma, Libo (IFW-Dresden)
6	11:45-12:00	Oral presentation	Geometrically curved and skin-conformal magnetoelectronics	Makarov, Denys (Helmholtz-Zentrum Dresden-Rossendorf)

WeBT2		Wednesday, July 6, 2022, 10:30-12:00, Track T2, AA12		
Quantum, Neuromorphic and Unconventional Computing				Oral Session

#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Hysteresis Associated with Intrinsic Oxide Traps in Gate Tunable Tetrahedral CVD MoS2 Memristor	Kurtash, Vladislav (TU Ilmenau) Mathew, Sobin (TU Ilmenau) Thiele, Sebastian (TU Ilmenau) Scheler, Theresa (TU Ilmenau) Reiprich, Johannes (TU Ilmenau) Haehnlein, Bernd (TU Ilmenau) Stauffenberg, Jaqueline (TU Ilmenau) Narasimha, Shilpashree (TU Ilmenau) Abedin, Saadman (TU Ilmenau) Jacobs, Heiko O. (TU Ilmenau) Joerg, Pezoldt (TU Ilmenau) Manske, Eberhard (TU Ilmenau)
2	10:45-11:00	Oral presentation	Mean Circuits Using Correlated Random Bitstreams in Stochastic Computing	li, feiyu (Hefei University of Technology) xie, guangjun (Hefei University of Technology) Han, Jie (University of Alberta) Zhang, Yongqiang (Hefei University of Technology)
3	11:00-11:15	Oral presentation	Low-Power K Nearest Neighbors Classifiers with Approximate Nanoscale Memories	Liu, Shanshan (New Mexico State University) Tang, Xiaochen (New Mexico State University) Reviriego, Pedro (Universidad Carlos III de Madrid) Liu, Weiqiang (Nanjing University of Aeronautics and Astronautics) Tang, Wei (New Mexico State University)

4	11:15-11:30	Oral presentation	Highly Accurate and Energy Efficient Stochastic Multipliers	Zhang, Yongqiang (Hefei University of Technology) Xie, Lingyun (Hefei University of Technology) Han, Jie (University of Alberta) 102677 xie, guangjun (Hefei University of Technology)
5	11:30-11:45	Oral presentation	Nanoscale Design of Multi-Layer Perceptrons Using Floating-Point Arithmetic Units	Niknia, Farzad (Northeastern University) Wang, Ziheng (Northeastern University) Liu, Shanshan (New Mexico State University) Lombardi, Fabrizio (Northeastern University)
6	11:45-12:00	Oral presentation	The Strong Sensitivity of the Time Response and Pinning Current of Binary Stochastic Neurons Employing Low Energy Barrier Nanomagnets to Geometrical Variations	Rahman, Rahnuma (Virginia Commonwealth University) Bandyopadhyay, Supriyo (Virginia Commonwealth University)

WeBT3		Wednesday, July 6, 2022, 10:30-12:00, Track T3, AB11		
Nanophotonics and Nano-Optoelectronics				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Capture Cross-Section and Defect Density Variation for Lead-Free Inorganic Perovskite Solar Cell: A Numerical Study	Sachchidanand, Sachchidanand (PDPM Indian Institute of Information Technology, Design and Manu) Kumar, Anil (PDPM Indian Institute of Information Technology, Design and Manu) Sharma, Pankaj (PDPM Indian Institute of Information Technology, Design & Manufa)
2	10:45-11:00	Oral presentation	Negative Refractive Index in Si/Porous SiO₂ Fishnet Metamaterial	Osinski, Marek (University of New Mexico)
3	11:00-11:15	Oral presentation	GHz Phonon Waveguides in Nanopatterned Silicon	Florez, Omar (Catalan Institute of Nanoscience and Nanotechnology) Madiot, Guilhem (ICN2 Catalan Institute of Nanoscience and Nanotechnology) Ng, Ryan C (Catalan Institute of Nanoscience and Nanotechnology) Arregui, Guillermo (Technical University of Denmark) Albrechtsen, Marcus (Technical University of Denmark) Stobbe, Søren (Technical University of Denmark) Sotomayor Torres, Clivia (Catalan Institute of Nanoscience and Nanotechnology) Garcia Fernandez, Pedro David (ICN2 and CSIC-Material Science Institute)
4	11:15-11:30	Oral presentation	NARROWBAND METASURFACE FILTERS FOR THERMAL MULTISPECTRAL IMAGING	Shaik, Noor E Karishma (University of Melbourne) Rajasekharan, Unnithan, Ranjith (University of Melbourne)
5	11:30-11:45	Oral presentation	Laser-Printed Emissive Metasurface Implemented with a Nanoscale Planar Thin-Film Resonator	Myeongkyu, Lee (Yonsei University) Yeongseon, Kim (Yonsei University) Dongkyun, Kang (Yonsei University) Jaeyong, Kim (Yonsei University)

6	11:45-12:00	Oral presentation	Joining of Silver, Nickel and Copper Nanorods: From Small to Large Scale for Optoelectronic Devices	Honey, Shehla (University of Okara) Asim, Jamil (University of Okara)
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WeBT4				Wednesday, July 6, 2022, 10:30-12:00, Track T4, AB12
Nanorobotics and nanomanufacturing				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	A Real-Time Target Tracking Method for SEM Images Based on Template Matching	Fang, Liang (Soochow University) Qu, Zhi (Soochow University) Zhang, Lue (Soochow University) Yang, Zhan (Soochow University)
2	10:45-11:00	Oral presentation	Photocatalytic-Based Microswimmers for Microbial Removal and Biofilm Eradication	Villa, Katherine (Institute of Chemical Research of Catalonia (ICIQ))
3	11:00-11:15	Oral presentation	2D-based nano/microrobots: Towards Biomedical and Environmental Applications	Khezri, Bahareh (University of Chemistry and Technology)
4	11:15-11:30	Oral presentation	Environmentally Friendly and Highly Controllable Full-Visible-Spectrum Perovskite Quantum Dots Based on Ion Exchange Resin	Wang, Chenhui (Fuzhou University) Chen, Enguo (Fuzhou University) Ye, Yun (Fuzhou University,) Xu, sheng (Fuzhou University) Guo, tailiang (Fuzhou University)
5	11:30-11:45	Oral presentation	Platform Merging for Nanorobotic Manipulation: Multiple Physical Stimuli and In-Situ Characterization	Zhang, Wenqi (City University of HongKong) Chen, Donglei (City University of HongKong) Hou, Chaojian (City University of Hong Kong) Wang, Kun (City University of Hong Kong) Li, Qingwei (Beijing Institute of Technology) Dong, Lixin (City University of Hong Kong)
6	11:45-12:00	Oral presentation	Phase Change Nanowires As Tunable NEMS	Ali, Utku Emre (University of Oxford) Modi, Gaurav (University of Pennsylvania) Agarwal, Ritesh (University of Pennsylvania) Bhaskaran, Harish (University of Oxford)

WeBT5					Wednesday, July 6, 2022, 10:30-12:00, Track T5, AB14				
Nano-Metrology and Characterization					Oral Session				
#	Subslot	Type of presentation	Title	Authors					
1	10:30-10:45	Oral presentation	Mechatronic Demodulation of Self-Sensing Cantilever for DC-Bias Free AFM Imaging in Liquid	Poik, Mathias (TU Wien) Mayr, Mario (TU Wien) Hackl, Thomas (TU Wien) Schitter, Georg (TU Wien)					
2	10:45-11:00	Oral presentation	Influence of Imaging Parameters on AFM Surface Potential Measurements in Aqueous Solutions	Hackl, Thomas (TU Wien) Poik, Mathias (TU Wien) Schitter, Georg (TU Wien)					
3	11:00-11:15	Oral presentation	A Computer Program for Objective Point Symmetry Classifications of Pseudosymmetric Electron Diffraction Spot Patterns	von Koch, Lukas (Portland State University) Moeck, Peter (Portland State University)					
4	11:15-11:30	Oral presentation	Enhanced Thermoelectric Properties of Solvothermal Grown Bismuth Telluride-Graphene Composite	Choi, Daniel (Oak Ridge Associated Universities) Karna, Shashi (US Army Research Laboratory)					
5	11:30-11:45	Oral presentation	Nanoscale Mechanobiology Characterization and Analysis of Cells	Zhu, Jiaijing (University of Warwick) Tian, Yanling (University of Warwick) Liu, Xianping (University of Warwick) 113375					
6	11:45-12:00	Oral presentation	Nanomechanical Properties of Native Human Ligamentum Flavum	Sepitka, Josef (Czech Technical University in Prague)					

WeBT8		Wednesday, July 6, 2022, 10:30-12:00, Track T8, Aula Magna			
Nano-Materials		Oral Session			
#	Subslot	Type of presentation	Title	Authors	
1	10:30-10:45	Oral presentation	Synthesis and Characterization of Chitosan Coated Gadolinium Doped Zinc Nanocomposites: Photocatalytic Degradation	dhir, rupy (GSSDGS KHALSA Collegepatiala) Rekhi, Heena (GSSDGS KHALSA College Patiala) kaur, varinderjit (GSSDGS KHALSA Collegepatiala) 112976	
2	10:45-11:00	Oral presentation	Hydrogen Iodide (HI) Neutral Beam Etching for InGaN/GaN Micro-LED	Ishihara, Takahiro (Tohoku Univ.) 112677 Sawada, Takahiro (Institute of Fluid Science, Tohoku University.) Ohori, Daisuke (Tohoku University) Wang, Xuelun (National Institute of Advanced Industrial Science and Technology) Endo, Kazuhiko (Institute of Advanced Industrial Science and Technology) Natori, Nobuhiro (Showa Denko K.K.) Sato, Daisuke (Showa Denko K.K.) Li, Yiming (National Chiao Tung University) Samukawa, Seiji (Tohoku University)	
3	11:00-11:15	Oral presentation	Wettability of ZnO and Curcumin Decorated Graphene Oxide Nanocomposite for Heavy Metal Ion Removal from Water	Chakraborty, Nabanita (Indian Institute of Technology Hyderabad) Acharyya, Swati (University of Hyderabad) Anindya, Roy (Indian Institute of Technology Hyderabad)	
4	11:15-11:30	Oral presentation	Nanostructured Germanium Anode for Lithium-Ion Batteries for Aerospace Technologies	Diolaiti, Valentina (University of Ferrara)	
5	11:30-11:45	Oral presentation	Gate Modulation Effect in Nano-Scale Epitaxial Aluminum Films on Sapphire Substrate Grown by Molecular Beam Epitaxy	Gao, Yu-Yao (Institute of Electronics, National Yang Ming Chiao Tung University)	

6	11:45-12:00	Oral presentation	Vertical and Lateral Growth of 2D Materials by Electroplating	Noori, Yasir (University of Southampton) Abdelazim, Nema (University of Southampton) Thomas, Shibin (University of Southampton) Ramadan, Sami (University of Southampton) Greenacre, Victoria (University of Southampton) Zhang, Jiawei (University of Southampton) Han, Yisong (University of Warwick) 112539 Beanland, Richard (University of Warwick) Klein, NORBERT (Imperial College London) Reid, Gill (University of Southampton) Bartlett, Philip (University of Southampton) de groot, C. H. (Kees) (University)
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WeDT1				Wednesday, July 6, 2022, 14:00-15:30, Track T1, AB14
Nanofabrication				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	14:00-14:15	Oral presentation	Characterization Technique for Interface Traps in Si Nanosheet GAA MOSFETs through Subthreshold I-V Characteristics	Yoo, Han Bin (Kookmin University) Kim, Haesung (Kookmin University) Lee, Yongwoo (Kookmin University) Ryu, Ji Hee (Kookmin University) Park, Ju Young (Kookmin University) Yang, Hyojin (Kookmin University) Bae, Jong-Ho (Kookmin University) Kim, Dae Hwan (Kookmin University) Choi, Sung-Jin (Kookmin University) Kim, Dong Myong (Kookmin University)
2	14:15-14:30	Oral presentation	Graphene-Enabled Silicon-Integrated Photodiode for DUV Imaging	Moffat, Neil (IMB-CNM) Rius, Gemma (Institute of Microelectronics of Barcelona) Villegas, Jairo (IMB - CNM (CSIC)) pellegrini, giulio (IMB-CNM-CSIC)
3	14:30-14:45	Oral presentation	Obtaining Cu₂O Nanoparticles Doped with Lanthanum, Magnesium and Manganese Using a Displacement Reaction	Guzman, Maribel (PUCP) Wei, Tian (Western University) Walker, Chantal (Western University) Jose E., Herrera (Western University)
4	14:45-15:00	Oral presentation	An Etching-Free Method for Patterning Carbon Nanotube Films Enabled by Universal Wettability Modulation	Qiu, Rui (Peking University) Ren, Qinqi (Peking University) Liu, Qi (Peking University) Lei, LU (Peking University, Shenzhen GraduateSchool) Zhang, Min (Peking University)
5	15:00-15:15	Oral presentation	Synthesis of Carbon Nanofibers (CNFs) by PECVD Using Ni Catalyst Printed by Spark Ablation	Sacco, Leandro Nicolas (TU Delft) van Ginkel, Hendrik Joost (Delft University of Technology) Vollebregt, Sten (Delft University of Technology)

6	15:15-15:30	Oral presentation	Fundamental Insights into Thermal Growth of Single-Crystal Copper-Oxide Nanowires	Košiček, Martin (Jožef Stefan Institute, Jožef Stefan International Postgraduate School) Zavašnik, Janez (Department F6, Jožef Stefan Institute) Baranov, Oleg (Plasma laboratory, National Aerospace University, Kharkiv, Ukraine) Šetina Batič, Barbara (Institute of Metals and Technology, Ljubljana, Slovenia) Cvelbar, Uroš (Jozef Stefan Institute, Slovenia)
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WeDT2		Wednesday, July 6, 2022, 14:00-15:30, Track T2, AA12			
Nano-Acoustic Devices		Oral Session			
#	Subslot	Type of presentation	Title	Authors	
1	14:00-14:15	Oral presentation	Effects of Pore Discovery Rate on the Ultrasonic Properties of Nuclear Graphites Undergoing Oxidation	Spicer, James B. (Johns Hopkins University) Paul, Ryan (Oak Ridge National Laboratory) Contescu, Cristian (Oak Ridge National Laboratory) Arregui-Mena, Jose (Oak Ridge National Laboratory) Berry, Ellen (Johns Hopkins University) Gallego, Nidia (Oak Ridge National Laboratory)	
2	14:15-14:30	Oral presentation	Design And Simulation of 2D Zinc Oxide Based SAW Gas Sensor for Hydrogen Gas Sensing	Mohamed Sultan, Suhana (UTM) Mohammad, Adib (Universiti Teknologi Malaysia)	
3	14:30-14:45	Oral presentation	Green and Flexible pMUT Based on Transparent Piezoelectric Chitosan Thin Film	de Marzo, Gaia (Istituto Italiano di Tecnologia, Dipartimento di Ingegneria dell) 112913 Mastronardi, Vincenzo Mariano (Istituto Italiano di Tecnologia, Dipartimento di Ingegneria dell) 112914 Algieri, Luciana (Istituto Italiano di Tecnologia (IIT), Center for Biomolecular N) 108747 Vergari, Federica (Istituto Italiano di Tecnologia - Center for Biomolecular Nanote) 112916 Pisano, Filippo (Istituto Italiano di Tecnologia (IIT)) 108749 Fachechi, Luca (Istituto Italiano di Tecnologia - Center for Biomolecular Nanote) 112918 Natta, Lara (Istituto Italiano di Tecnologia - Center for Biomolecular Nanote) 112919 Ascanio, Giulia (Istituto Italiano di Tecnologia - Center for Biomolecular Nanote) 112920 Rizzi, Francesco (Istituto Italiano di Tecnologia (IIT)) 103403 Pisanello, Ferruccio (Istituto Italiano di Tecnologia, Center for Biomolecular Nanotec) 103361 De Vittorio, Massimo (Istituto Italiano di Tecnologia)	

4	14:45-15:00	Oral presentation	Non-Contact and Non-Invasive Probing and Imaging of Single-Cell Mechanics with Acoustic Nano-Pulses	liu, liwang (Laboratory for Soft Matter and Biophysics, KU Leuven) christ, glorieux (Laboratory for Soft Matter and Biophysics, KU Leuven) bertrand, audoin (UMR CNRS 5295 Université de Bordeaux)
5	15:00-15:15	Oral presentation	Ultrasound and microbubbles for anticancer drug delivery: from physics to clinics (invited paper)	Bouakaz, Ayache (Inserm)
6	15:15-15:30	Oral presentation	Exploring Coherent Acoustic Waves and Lattice Thermal Phonons for Readout of Anti-ferromagnetic Order in Thin Films	Balogun, Oluwaseyi (Northwestern University) Jiang, Shizhou (Northwestern University)

WeDT3				Wednesday, July 6, 2022, 14:00-15:30, Track T3, AB11
Nanomagnetics				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	14:00-14:15	Oral presentation	Erythrocyte-Derived Carriers for Theranostics Applications	Della Pelle, Giulia (Institut Jozen Stefan) Kostevsek, Nina (Institut Jozen Stefan)
2	14:15-14:30	Oral presentation	Probing Edge Fluorinated Germanene Nanoribbons for Spintronic Applications	Sharma, Varun (Madhav Institute of Technology and Science, Gwalior) Srivastava, Pankaj (ABV-Indian Institute of Information Technology and Management, Gwalior) Muralidharan, Bhaskaran (Indian Institute of Technology Bombay)
3	14:30-14:45	Oral presentation	Magnetolectric transducers for spin waves	Ciubotaru, Florin (imec)
4	14:45-15:00	Oral presentation	Development of a Model System for Magnetic Nanoparticle-Based Biosensing in the Tumor Microenvironment	Moss, Gabrielle (Thayer School of Engineering at Dartmouth College) Knopke, Christian (Lodestone Biomedical) Diamond, Solomon (Thayer School of Engineering at Dartmouth College)
5	15:00-15:15	Oral presentation	Magnetolectric Nanoparticles for Wireless Brain Stimulation	Abdel-Mottaleb, Mostafa (University of Miami) 113376 Zhang, Elric (University of Miami) Campos, Manuel (Cellular Nanomed Inc.) Andre, Victoria (University of Miami) Shotbolt, Max (University of Miami) Smith, Isadora (University of Miami) Yildirim, Yagmur (University of Miami) Yildirim, Burak (University of Miami) Noga, Brian (University of Miami) Liang, Ping (Cellular Nanomed Inc.) Khizroev, Sakhmat (Florida International University)

6	15:15-15:30	Oral presentation	Magnetolectric Core Shell Nanoparticles Used to Wirelessly Generate Action Potentials in Vitro	Zhang, Elric (University of Miami) Abdel-Mottaleb, Mostafa (University of Miami) Yildirim, Yagmur (University of Miami) Navarrete, Brayan (Florida International University) Campos, Manuel (Cellular Nanomed Inc.) Smith, Isadora (University of Miami) Yildirim, Burak (University of Miami) Liang, Ping (Cellular Nanomed Inc.) Khizroev, Sakhvat (Florida International University)
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WeDT4				Wednesday, July 6, 2022, 14:00-15:30, Track T4, AB12
Nanosensors and nanoactuators				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	14:00-14:15	Oral presentation	On-Chip Nanostructured Electrochemical Cells for Enhanced Glucose Monitoring in Bioprocesses	Rusli, Nurul Izni (University of Leuven (KU Leuven), 3001 Leuven,) Van den Eeckhoudt, Ruben (Dept. of Electrical Eng. (ESAT-MNS), University of Leuven (KU Leuven)) Ceysens, Frederik Simon Godfried (Dept. of Electrical Eng. (ESAT-MNS), University of Leuven (KU Leuven)) Taurino, Irene (KU Leuven) Kraft, Michael (University of Leuven (KU Leuven), 3001 Leuven,)
2	14:15-14:30	Oral presentation	Detailed Analysis of Flow-Induced Thermal Mechanisms in Sub-Micron MEMS-Based VOC Biosensors: A Design Solution for the Nanometer Scale	Perello-Roig, Rafel (University of the Balearic Islands) Verd, Jaume (University of the Balearic Islands) Bota, Sebastia (University of the Balearic Islands) Segura, Jaume (University of the Balearic Islands)
3	14:30-14:45	Oral presentation	Single-Molecule Aflatoxin B1 Sensing Via Pyrrole-Based Molecular Quantum Dot	Mo, Fabrizio (Politecnico di Torino) Spano, Chiara Elfi (Politecnico di Torino) Ardesi, Yuri (Politecnico di Torino) Ruo Roch, Massimo (Politecnico di Torino) Piccinini, Gianluca (Politecnico di Torino) Graziano, Mariagrazia (Politecnico di Torino)
4	14:45-15:00	Oral presentation	Multi-Parameter RF Based Characterization of Nanoparticles and Biomolecules	Mazumder, Annesha (IIIT, Hyderabad) Syed, Azeemuddin (International Institute of Information Technology Hyderabad) Sau, Tapan K. (International Institute of Information Technology, Hyderabad) Bhimalapuram, Prabhakar (International Institute of Information Technology, Hyderabad) Biswas, Arunangshu (International Institute of Information Technology, Hyderabad)

5	15:00-15:15	Oral presentation	Au/SrTiO₃ Nanotubes/Ti Sensor for Selective Detection of Acetone	Bhardwaj, Radha (Birla Institute of Science and Technology) Hazra, Arnab (Birla Institute of Technology and Science, Pilani)
6	15:15-15:30	Oral presentation	Highly Sensitive Electrospun SnO₂-ZnO Composite Nanofibers for Low Concentration Ethanol Detection	Kumar Lalwani, Suraj (Indian Institute of Information Technology - Allahabad) Debnath, Ajit (Indian Institute of Information Technology - Allahabad) Sunny, Sunny (Indian Institute of Information Technology - Allahabad)

WeDT5		Wednesday, July 6, 2022, 14:00-15:30, Track T5, AA11			
Nano-Materials #2		Oral Session			
#	Subslot	Type of presentation	Title	Authors	
1	14:00-14:15	Oral presentation	Lithium Yttrium Ytterbium Fluoride Nanocrystals for Laser Cooling Applications	Osinski, Marek (University of New Mexico)	
2	14:15-14:30	Oral presentation	Influence of pH of the solution on phase purity and luminescence properties of Gd₃Al₂Ga₃O₁₂:Ce³⁺ garnet nanopowders prepared using the sol-gel method.	Zaidi, Lydia (UMMTO) Boukerika, Allaoua (CRNA) Iarbah, Youssef (CRNA) Hammoum, Karima (UMMTO) Guebous, Lakhdar (CRNA)	
3	14:30-14:45	Oral presentation	Asymmetric Memresistive Switching Characteristics of p-type 2D SnS Nanomaterial	Saha, Soumi (BITS Pilani, Hyderabad Campus) Adepu, Vivek (BITS Pilani, Hyderabad Campus) Gohel, Khush (BITS Pilani, Hyderabad Campus) Sahatiya, Parikshit (BITS Pilani, Hyderabad Campus) Dan, Surya Shankar (BITS Pilani, Hyderabad)	
4	14:45-15:00	Oral presentation	ELABORATION AND CHARACTERIZATION OF CERIUM ELECTRODEPOSITED ON SILICON NITRIDE	Brik, Afaf (CRTSE)	
5	15:00-15:15	Oral presentation	Electron Transport in Discontinuous Metal Thin Films	Morris, James E (Portland State University)	

6	15:15-15:30	Oral presentation	Nanocrystalline Silicon for Optoelectromechanical Applications	Navarro-Urrios, Daniel (University of Barcelona) Maire, Jeremie (Catalan Institute of Nanoscience and Nanotechnology) Pitanti, Alessandro (CNR - Nanoscience Institute) Martinez, Alejandro (Universidad Politecnica de Valencia) Sotomayor Torres, Clivia (Catalan Institute of Nanoscience and Nanotechnology) Ahopelto, Jouni (VTT Technical Research Centre of Finland Ltd)
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WeDT8		Wednesday, July 6, 2022, 14:00-15:30, Track T8, Aula Magna		
Nanoelectronics				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	14:00-14:15	Oral presentation	Estimating the Process Variation Effects of Stacked Gate All Around Si Nanosheet CFETs Using Artificial Neural Network Modeling Framework	butola, rajat (NYCU) Li, Yiming (National Chiao Tung University) Kola, Sekhar Reddy (National Yang Ming Chiao Tung University) Chuang, Min-Hui (National Yang Ming Chiao Tung University) Akbar, Chandni (NYCU)
2	14:15-14:30	Oral presentation	Low Temperature Effects on the Operation of Nanomaterials Based Electronic Devices	Nekovei, Reza (Texas A&M University-Kingsville) Verma, Amit (Texas A&M University - Kingsville)
3	14:30-14:45	Oral presentation	Establishing an Ethically-Aligned Design Mentality for Nano-Scaled Engineering: Why Ethicists Accelerate Technological Progress	Jaynes, Tyler Lance (Albany Medical College)
4	14:45-15:00	Oral presentation	Simulation of MoS2 Based Asymmetric Nano-Channel Rectifier	Garg, Sahil (Punjab Engineering College (Deemed to be University)) Sharma, Bhavuk (Punjab Engineering College (Deemed to be University)) Khanal, Gaurav Mani (Punjab Engineering College (Deemed to be University)) Gupta, Neena (Punjab Engineering College (Deemed to be University)) Singh, Arun (Punjab Engineering College (Deemed to be University)) Syal, Rajat (Punjab Engineering College (Deemed to be University)) Kumar, Sanjeev (Punjab Engineering College (Deemed to be University)) Kasjoo, Shahrir Rizal (Universiti Malaysia Perlis Kangar, Malaysia)

5	15:00-15:15	Oral presentation	Exploiting Nanoelectronic Properties of Memory Chips for Prevention of IC-Counterfeiting	Chakraborty, Supriya (Indian Institute of Technology Delhi) Das, Tamoghno (Indian Institute of Technology, Delhi) Suri, Manan (Indian Institute of Technology Delhi)
6	15:15-15:30	Oral presentation	A Hybrid Method for Signal Probability Estimation with Large Circuits	Chen, Chunhong (University of Windsor) Zhan, Suoyue (University of Windsor)

WeET1		Wednesday, July 6, 2022, 16:00-17:30, Track T1, AA11		
Nano-Optics				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	Photoelectric Characterization of a Single Layer of CNTs Using CAFM	Abbas, Yawar (Khalifa University) Mohammad, Baker (Khalifa University) Rezeq, Moh'd (Khalifa University)
2	16:15-16:30	Oral presentation	Phase Chirality Induced Meta-Atoms for Holographic Displays	Naeem, Taimoor (MicroNano Lab, Department of Electrical Engineering, Information) Khaliq, Hafiz Saad (MicroNano lab, Department of Electrical Engineering, Information) Tauqeer, Tauseef (MicroNano Lab, Electrical Engineering Department, Information Te) Zubair, Muhammad (MicroNano Lab, Department of Electrical Engineering, Information) Mehmood, Muhammad Qasim (MicroNano Lab, Department of Electrical Engineering, Information) Massoud, Yehia (King Abdullah University of Science and Technology (KAUST))
3	16:30-16:45	Oral presentation	Dual-Mode Chiral Meta-Holography through All-Dielectric Nano-Surfaces in Visible Regime	Khaliq, Hafiz Saad (MicroNano lab, Department of Electrical Engineering, Information) Naeem, Taimoor (MicroNano Lab, Department of Electrical Engineering, Information) Riaz, Kashif (MicroNano Lab, Department of Electrical Engineering, Information) Zubair, Muhammad (MicroNano Lab, Department of Electrical Engineering, Information) Mehmood, Muhammad Qasim (MicroNano Lab, Department of Electrical Engineering, Information) Massoud, Yehia (King Abdullah University of Science and Technology (KAUST))

4	16:45-17:00	Oral presentation	Novel Spin-Decoupled Holographic Meta-Displays	Javed, Isma (MicroNano Lab, Department of Electrical Engineering, Information) Naveed, Muhammad Ashar (MicroNano Lab, Department of Electrical Engineering, Information) Zubair, Muhammad (MicroNano Lab, Department of Electrical Engineering, Information) Goyal, Amit Kumar (King Abdullah University of Science and Technology (KAUST)) Mehmood, Muhammad Qasim (MicroNano Lab, Department of Electrical Engineering, Information) Massoud, Yehia (King Abdullah University of Science and Technology (KAUST))
5	17:00-17:15	Oral presentation	Pseudo Non-Diffracting Beam Array through High-Indexed Dielectric Metaplate	Javed, Isma (MicroNano Lab, Department of Electrical Engineering, Information) Naveed, Muhammad Ashar (MicroNano Lab, Department of Electrical Engineering, Information) Zubair, Muhammad (MicroNano Lab, Department of Electrical Engineering, Information) Riaz, Kashif (MicroNano Lab, Department of Electrical Engineering, Information) Mehmood, Muhammad Qasim (MicroNano Lab, Department of Electrical Engineering, Information) Massoud, Yehia (King Abdullah University of Science and Technology (KAUST))
6	17:15-17:30	Oral presentation	Polarization-Selective Electro-Optical Tunability in Phase-Change Nanowires	Lee, Jason (June (University of Oxford)) Farmakidis, Nikolaos (Oxford University) Bhaskaran, Harish (University of Oxford)

WeET2				Wednesday, July 6, 2022, 16:00-17:30, Track T2, AA12
Nanoelectronics #2				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	Challenges in Electron Beam Lithography of Silicon Nanostructures	Cakirlar, Cigdem (Namlab gGmbH) Galderisi, Giulio (Namlab gGmbH) Beyer, Christoph (Namlab gGmbH) Simon, Maik (Namlab gGmbH) Mikolajick, Thomas (NAmlab gGmbH, Chair for Nanoelectronics, TU Dresden) Trommer, Jens (Namlab gGmbH)
2	16:15-16:30	Oral presentation	Monocrystalline ZnO Nanorods Thin-Film Based Schottky Barrier Diode	Ali, Ghusoon M. (Electrical Engineering Department-Mustansiriyah University) Armoot, Shahad T. (Electrical Engineering Department-Mustansiriyah University)
3	16:30-16:45	Oral presentation	A Low-Cost and Robust Latch Protected against Triple Node Upsets in Nanoscale CMOS Based on Source-Drain Cross-Coupled Inverters	Yan, Aibin (Anhui University) Song, Shukai (Anhui University) Chen, Yu (Anhui University) Cui, Jie (Anhui University) Huang, Zhengfeng (Hefei University of Technology) Wen, Xiaoqing (Kyushu Institute of Technology)
4	16:45-17:00	Oral presentation	Hybrid Graphene Oxide FET: A Potential Approach to Achieve Amplified Gas Sensitivity	Hazra, Arnab (Birla Institute of Technology and Science, Pilani) Bhardwaj, Radha (Birla Institute of Science and Technology)
5	17:00-17:15	Oral presentation	Revisiting Gate-Induced Drain Leakage in Nanowire FETs for 1T-DRAM	Jaiswal, Anupam Kumar (IIT Kanpur) Patel, Sharang Dhar (IIT Kanpur) Sahay, Shubham (IIT Kanpur)

6	17:15-17:30	Oral presentation	Charge Transport Pathways in DNA Origami Nanowires	Akin Gultakti, Caglanaz (TOBB University of Economics and Technology) Demir, Busra (TOBB University of Economics and Technology) Mohammad, Hashem (University of Washington) Anantram, Anant (University of Washington) OREN, ERSIN EMRE (TOBB University of Economics and Technology)
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WeET3		Wednesday, July 6, 2022, 16:00-17:30, Track T3, AB11		
Processes and Materials				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	Synthesis of Nanoporous Type a and X Zeolite Mixtures from Biomass Combustion Fly Ash for Post-Combustion Carbon Capture	Petrovic, Ben (Brunel University London) Gorbounov, Mikhail (Brunel University London) Özmen, Serap (Cranfield University) Clough, Peter (Cranfield University) Masoudi Soltani, Salman (Brunel University London)
2	16:15-16:30	Oral presentation	Centrifugal Spinning of Nanofibers: Materials, Properties and Applications	Rihova, Martina (CEITEC BUT) Hromadko, Ludek (Univerzita Pardubice) Cicmancova, Veronika (Univerzita Pardubice) Macak, Jan (Univerzita Pardubice)
3	16:30-16:45	Oral presentation	Development of Cryogenic Dielectric Nanocomposites for High-Temperature Superconductor Applications	Mahon, Jacob (Rowan University) Cook, Jordan (Rowan University) Yu, Lei (Rowan University) Hu, Xiao (Rowan University) Haas, Francis (Rowan University) Krchavek, Robert (Rowan University) Xue, Wei (Rowan University)
4	16:45-17:00	Oral presentation	Anodic TiO2 Nanotube Layers: Recent Advancements in Morphologies	Sopha, Hanna (University of Pardubice) Sepúlveda, Marcela (University of Pardubice) Hromadko, Ludek (Univerzita Pardubice) Macak, Jan (Univerzita Pardubice)

5	17:00-17:15	Oral presentation	Surface Grafted Perchlorinated Trityl Radicals As Active Components in Devices	<p>Crivillers, Nuria (Institute of Materials Science of Barcelona (ICMAB-CSIC)) de Sousa, Alejandro (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Mas-Torrent, Marta (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Fabre, Bruno (Uni. Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Renn)) Pfattner, Raphael (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Rovira, Concepció (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC))</p>
6	17:15-17:30	Oral presentation	Minute-Made Bi₂Te₃ Films Via Electrophoretic Deposition	<p>Batili, Hazal (KTH Royal Institute of Technology) Hamawandi, Bejan (KTH Royal Institute of Technology) Ergul, Adem Bjorn (KTH Royal Institute of Technology) Toprak, Muhammet Sadaka (KTH Royal Institute of Technology)</p>

WeET4				Wednesday, July 6, 2022, 16:00-17:30, Track T4, AB12
Nanofabrication #2				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	Hydrogel-Assisted Direct Writing of Conjugated Polymers	Dadras-Toussi, Omid (University of Houston) Kisucky, Anthony (University of Houston, Biomedical Engineering Department) Majd, Sheereen (University of Houston) Abidian, Mohammad Reza (University of Houston)
2	16:15-16:30	Oral presentation	High Binding Density Coatings for Biomolecules on Plasmonic Gratings and Their Sensing Applications	Bok, Sangho (Southern Utah University) 112409
3	16:30-16:45	Oral presentation	Scalable Fabrication of Metallic Nanogaps Using CMOS-Based 10 nm Spacer Lithography	Chryssikos, Domenikos (Technical University of Munich) Heigl, Martin (Fraunhofer Research Institution for Microsystems and Solid State) Kounoupioti, Evanthia (Technical University of Munich) Neumeier, Karl (Fraunhofer Research Institution for Microsystems and Solid State) Wieland, Robert (Fraunhofer Research Institution for Microsystems and Solid State) Tornow, Marc (TU München)
4	16:45-17:00	Oral presentation	Patterning of Fine-Features in Nanoporous Films Synthesized by Spark Ablation	Ji, Xinrui (Delft University of Technology) van Ginkel, Hendrik Joost (Delft University of Technology) Hu, Dong (Delft University of Technology) Schmidt-Ott, Andreas (Delft University of Technology) van Zeijl, Henk (Delft University of Technology) Vollebregt, Sten (Delft University of Technology) Zhang, Guoqi (Delft University of Technology)

5	17:00-17:15	Oral presentation	Atmospheric Pressure Plasma Treatment of Ethanol for Nano-Carbon Synthesis	Jurov, Andrea (Faculty of Chemical Engineering and Technology) Cvelbar, Uroš (Jozef Stefan Institute, Slovenia) Zavašnik, Janez (Department F6, Jožef Stefan Institute)
6	17:15-17:30	Oral presentation	Mesoporous Silica based Memristor for neuromorphic computing	Zhang, Tongjun (University of Southampton)

WeET5				Wednesday, July 6, 2022, 16:00-17:30, Track T5, AB14
Nanosensors and nanoactuators #2				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	A Novel Room Temperature SO₂ Gas Sensor Based on TiO₂/rGO FET	Zeng, Simei (Beijing Jiaotong University) Deng, Tao (Beijing Jiaotong University)
2	16:15-16:30	Oral presentation	A nanostructured assay for the quantitative electrochemical diagnosis of SARS-CoV-2 and Influenza A infections in untreated saliva	Siavash Moakhar, Roozbeh (McGill University) Carolina del Real Mata, Carolina del (McGill University) Shafique, Houda (McGill University) Jalali, Mahsa (McGill University) de Vries, Justin (McGill University) Strauss, Julia (McGill University) AbdElFatah, Tamer (McGill University) McLean, Myles (McGill University) Isaac Hosseini, Seyed Imman (McGill University) Mahshid, Sahar Sadat (Sunnybrook Health Sciences Centre) Liang, Chen (McGill University) Mahshid, Sara (McGill University)
3	16:30-16:45	Oral presentation	Thick Ultraporous Metal Oxide Nanostructures Abundant in Oxygen Vacancies for Room Temperature VOCs Sensing	Abideen, Zain Ul (Australian National University) Choi, Jun-Gyu (Gwangju Institute of Science and Technology (GIST)) Lee, Won-June (Gwangju Institute of Science and Technology (GIST)) Murugappan, Krishnan (Australian National University) Tran-Phu, Thanh (Australian National University) Yoon, Myung-Han (Gwangju Institute of Science and Technology (GIST)) Tricoli, Antonio (Australian National University)

4	16:45-17:00	Oral presentation	Aerosol jet printing of graphene oxide for highly sensitive Label-Free electrochemical biosensors for histamine monitoring	Izquierdo, Ricardo (École de Technologie Supérieure)
5	17:00-17:15	Oral presentation	Doped Graphene on Silicon Short Channel Field Effect Transistor for High Drain Current and Applications in RF And Logic Circuits	RAHMAN, MD MAHFUZUR (University of Technology Malaysia Johor, Malaysia)
6	17:15-17:30	Oral presentation	ZnO Nanowire Synthesis and Application in UV Sensing	Ilickas, Mindaugas (KAUNAS UNIVERSITY OF TECHNOLOGY) Mardosaite, Rasa (KAUNAS UNIVERSITY OF TECHNOLOGY) RACKAUSKAS, SIMAS (KAUNAS UNIVERSITY OF TECHNOLOGY)

WeET8		Wednesday, July 6, 2022, 16:00-17:30, Track T8, Aula Magna		
Modeling and Simulation				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	16:00-16:15	Oral presentation	Development of Nanoporosity on a Biomass Combustion Ash-Derived Carbon for CO2 Adsorption	Gorbounov, Mikhail (Brunel University London) Petrovic, Ben (Brunel University London) Özmen, Serap (Cranfield University) Clough, Peter (Cranfield University) Bekmuratova, Dilyara (Brunel University London) Masoudi Soltani, Salman (Brunel University London)
2	16:15-16:30	Oral presentation	Multiphysics FEA Simulation for Polymer Nanocomposite Laser Ultrasound Transducer	Liu, Sipan (North carolina university) Kim, Howuk (North Carolina State University) Chang, Wei-Yi (North Carolina State University) Huang, Wenbin (State Key Laboratory of Mechanical Transmissions, Chongqing Univ) Jiang, Xiaoning (North Carolina State University) Ryu, Jong Eun (North carolina university)
3	16:30-16:45	Oral presentation	On the Subthreshold Performance of Topological Insulator Field Effect Transistors under Momentum Relaxation Scattering	Basak, Anirban (Indian Institute of Technology Bombay) Jana, Koustav (Indian Institute of Technology Bombay) Banerjee, Sagnik (Jadavpur University) Muralidharan, Bhaskaran (Indian Institute of Technology Bombay)
4	16:45-17:00	Oral presentation	Theoretical Analysis of Dielectric Assisted Tamm Mode Excitation	Goyal, Amit Kumar (King Abdullah University of Science and Technology (KAUST)) Pradhan, K P (IIITDM Kancheepuram) Massoud, Yehia (King Abdullah University of Science and Technology (KAUST))

5	17:00-17:15	Oral presentation	Intelligent Modeling of Electrical Characteristics of Multi-Channel Gate All Around Silicon Nanosheet MOSFETs Induced by Work Function Fluctuation	Akbar, Chandni (NYCU) Li, Yiming (National Chiao Tung University) Sung, Wen-Li (National Chiao Tung University)
6	17:15-17:30	Oral presentation	A Novel Graphene Nanoribbon XOR Gate Design	Rallis, Konstantinos (Democritus University of Thrace) Sirakoulis, Georgios Ch. (Democritus University of Thrace) Karafyllidis, Ioannis (Democritus University of Thrace) Rubio, Antonio (Universitat Politècnica de Catalunya) 101281 Dimitrakis, (NCSR Dimokritos) 113023

WeCT7				Wednesday, July 6, 2022, 12:00-12:30, Track T7, Cafeteria
Poster Session 1				Poster Session
#	Subslot	Type of presentation	Title	Authors
1	12:00-12:30	Poster presentation	Fabrication of Polymeric Nano Pillars and Evaluation Their Bactericide Properties	Ogawa, Natsuki (Kansai University) Shimizu, Tomohiro (Kansai University) Shingubara, Shoso (Kansai University) Ito, Takeshi (Kansai University)
2	12:00-12:30	Poster presentation	Effect of Donor Ionization on 2DEG Charge Density in δ-Doped β-(Al_xGa_{1-x})₂O₃/Ga₂O₃ HFET	Patnaik, Akash (PDPM Indian Institute of Information Technology, Design & Manufa) Jaiswal, Neeraj K. (Indian Institute of Information Technology, Design & Manufacturi) Sharma, Pankaj (PDPM Indian Institute of Information Technology, Design & Manufa)
3	12:00-12:30	Poster presentation	Ultrasound and Magnetic Dual-Mode Stacked Transducer for Sonothrombolysis with a Combination of Nanodroplets and Magnetic Nanoparticles	Zhang, Bohua (NC State University) Wu, Huaiyu (NC state university) Jiang, Xiaoning (North Carolina State University)
4	12:00-12:30	Poster presentation	Allostery: A Nanomechanical Communication Perspective	Nasif, Ahmed (University of Wisconsin-Oshkosh) Louvaris, Drosianos (University of Wisconsin-Oshkosh) Rahman, Nafeesa (Fox Valley Technical College)
5	12:00-12:30	Poster presentation	An Approach of Mutual Information-Based Characterization of Allosteric Macromolecules	Louvaris, Drosianos (University of Wisconsin-Oshkosh) Rahman, Nafeesa (Fox Valley Technical College) Nasif, Ahmed (University of Wisconsin-Oshkosh)
6	12:00-12:30	Poster presentation	Impact of 3nm Silicon Nanoparticles on Metal Si Schottky Junctions	Rezk, Ayman (Khalifa University) Nayfeh, Ammar (Khalifa University)

7	12:00-12:30	Oral presentation	Mechanical Hotspots in Electronic Devices and their Implications	Haque, Aman (Penn State University)
8	12:00-12:30	Poster presentation	Imaging Properties of Microsphere Superlens with Varying Background Refractive Index under Inclined Illumination	Li, Shendi (Shenyang Institute of Automation, Chinese Academy of Sciences, a) Luo, Hao (Shenyang Institute of Automation, Chinese Academy of Sciences) Liu, Fengli (Shenyang Ligong University) Zhang, Tianyao (Shenyang Institute of Automation(SIA), Chinese Academy of Scienc) Wang, Xiaoduo (Shenyang Institute of Automation, Chinese Academy of Sciences) Yu, Haibo (Chinese Academy of Sciences) Liu, Lianqing (Shenyang Institute of Automation, Chinese Academy of Sciences)
9	12:00-12:30	Poster presentation	Ternary Full Adder in CMOS-Memristor Technology	panasa, srikanth (student, iit mandi) Bodapati, Srinivasu (IIT Mandi) Kaushik, Nandit (Indian Institute of Technology Mandi)
10	12:00-12:30	Poster presentation	Fabrication of Micro/nanostructures on Silicon using a Mixed Multiple Pulses Femtosecond Laser	Luo, Hao (Shenyang Institute of Automation, Chinese Academy of Sciences) Yu, Haibo (Chinese Academy of Sciences) Wen, Yangdong (shenyang institute of automation) Li, Shendi (Shenyang Institute of Automation, Chinese Academy of Sciences, a) Wang, Xiaoduo (Shenyang Institute of Automation, Chinese Academy of Sciences) Qiu, Ye (Shenyang Institute of Automation) 112910 Liu, Lianqing (Shenyang Institute of Automation, Chinese Academy of Sciences)
11	12:00-12:30	Poster presentation	Healthy, Indoor LED Lighting Using Stable Nanorods On-Chip LED	KANG, chengbin (Hong Kong University of Science and Technology, Hong Kong) Prodanov, Maksym (Hong Kong University of Science and Technology) Mallem, Kumar (HKUST) Gao, Yiyang (HKUST)

				Vashchenko, Valerii (Hong Kong University of Science and Technology) Srivastava, Abhishek Kumar (Hong Kong University of Science and Technology)
12	12:00-12:30	Poster presentation	Development of a Robotic 3D Printing Polymer Extruder with Laser and FTIR for Nano-Manufacturing and Characterization	Beliatis, Michail (Aarhus University) Lindberg, Jonas (Aarhus University) Østergaard, Benedicte (Aarhus University) Pokorniecki, Damian (Aarhus University) Gross, Allan (Aarhus University) Presser, Mirko (Aarhus University)
13	12:00-12:30	Poster presentation	Quantum Dots Based Electrochemical Sensor for Point of Care Detection of Covid-19 in Waste Water: An Epidemiology Approach	Nigam Joshi, Preeti (Fastsense Diagnostics)
14	12:00-12:30	Poster presentation	Ultra-High Energy Storage Efficiency in La-Doped BCZT Relaxor Ceramic	Syal, Rajat (Punjab Engineering College (Deemed to be University)) Goel, Rahul (Punjab Engineering College) Bansal, Pankhuri (Punjab Engineering College) Garg, Sahil (Punjab Engineering College (Deemed to be University)) Singh, Arun (Punjab Engineering College (Deemed to be University)) Kumar, Sanjeev (Punjab Engineering College (Deemed to be University))
15	12:00-12:30	Poster presentation	High-Performance In-Memory Logic Scheme Using Unipolar Switching SOT-MRAM	Zhu, Haonan (Transactions of Nanjing University of Aeronautics & Astronautics) Wu, Bi (Nanjing University of Aeronautics and Astronautics (NUAA)) Chen, Ke (Nanjing University of Aeronautics and Astronautics) Liu, Weiqiang (Nanjing University of Aeronautics and Astronautics)

CONFERENCE DAY 2: Detailed Program

Thursday July 7 2022

ThBT1		Thursday, July 7, 2022, 10:30-12:00, Track T1, AA11		
Nano-Materials #3				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Peptide-Functionalized Chitosan-Coated Magnetic Liposomes Used to Treat Inner Ear Disorders	Cadinoiu, Anca Niculina ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Delia, Rata ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Atanase, Leonard Ionut ("Apollonia" University of Iasi, Faculty of Medical
2	10:45-11:00	Oral presentation	Zein-Chitosan Nanoparticles produced by Flash Nanoprecipitation	Coutinho, Paula (Polytechnic Institute of Guarda) Loureiro, Jorge (Polytechnic Institute of Guarda) P. Ribeiro, Maximiano (CPIRN-IPG—Center of Potential and Innovation of Natural Resources, Polytechnic Institute of Guarda, Av. Dr. Francisco de Sá Carn) Miguel, Sónia (Polytechnic Institute of Guarda)
3	11:00-11:15	Oral presentation	2D layered MPX3 applications in electrochemical energy conversion reactions	Gusmao, Rui (University of Chemistry and Technology Prague)
4	11:15-11:30	Oral presentation	The Growth of 2H-Si Microneedles Using Al-Based Nano Absorber	Ahn, Namjun (Korea Maritime and Ocean University) Kim, Kyoung-hwa (Korea Maritime and Ocean University) Kim, Soyeong (Korea Maritime and Ocean University) Mun, Suhyun (Korea Maritime and Ocean University) Park, Seonwoo (Korea Maritime and Ocean University) Jeong, Ha Neul (Korea Maritime and Ocean University) Ahn, Hyung Soo (Korea Maritime and Ocean University) Lee, Jae Hak (Korea Maritime and Ocean University) Yang, Min (Korea Maritime and Ocean University) Chun, Young Tea (Korea Maritime and Ocean University) Yi, Sam Nyung (Korea Maritime and Ocean University) Kim, Suck-Whan (Andong National University)

5	11:30- 11:45	Oral presentation	Role and Properties of Si Nanowires on 4H-SiC Substrates Grown by Mixed-Source HVPE	Kim, Kyoung-hwa (Korea Maritime and Ocean University) Kim, Soyeong (Korea Maritime and Ocean University) Mun, Suhyun (Korea Maritime and Ocean University) Park, Seonwoo (Korea Maritime and Ocean University) Ahn, Namjun (Korea Maritime and Ocean University) Jeong, Ha Neul (Korea Maritime and Ocean University) Ahn, Hyung Soo (Korea Maritime and Ocean University) Lee, Jae Hak (Korea Maritime and Ocean University) Yang, Min (Korea Maritime and Ocean University) Chun, Young Tea (Korea Maritime and Ocean University) Yi, Sam Nyung (Korea Maritime and Ocean University) Kim, Suck-Whan (Andong National University)
6	11:45- 12:00	Oral presentation	Monitoring Folds Localization in ultra-thin Transition Metal Dichalcogenides using Optical Harmonic Generation	Khan, Ahmed Raza (Australian National University) 113397

ThBT2

Thursday, July 7, 2022, 10:30-12:00, Track T2, AA12

Modeling and
Simulation #2

Oral Session

#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Portable Paper-Based Sensing Platform Using Novel Histidine-Stabilized Gold Nanoclusters for Fast Naked-Eye Detection of Fe Ions from Water	Hada, Alexandru-Milentie (Babes-Bolyai University) Zetes, Markus (Babes-Bolyai University) Focsan, Monica (Babes-Bolyai University) Astilean, Simion (Babes-Bolyai University) Craciun, Ana-Maria (Babes-Bolyai University)
2	10:45-11:00	Oral presentation	3D Process Flow Modelling and Characterisation of Stacked Gate-All-Around Nanosheet Transistors	Kuzipa, Mumba (Swansea University) Cai, Shuqiao (Swansea University) Kalna, Karol (Swansea University)

3	11:00-11:15	Oral presentation	Compact Model for Oxygen Engineered Yttrium Oxide-Based Resistive Switching Devices	Aguirre, Fernando (Departament d'Enginyeria Electrònica, Universitat Autònoma de Ba) Piros, Eszter (Advanced Thin Film Technology Division, Institute of Materials S) Alff, Lambert (Advanced Thin Film Technology Division, Institute of Materials S) Hochberger, Christian (Computer systems Group, Department of Electrical and Information) Gehringer, Jonas (Computer systems Group, Department of Electrical and Information) Petzold, Stefan (Advanced Thin Film Technology Division, Institute of Materials S) Kaiser, Nico (Advanced Thin Film Technology Division, Institute of Materials S) Jalaguier, Eric (CEA, Leti) Nolot, Emmanuel (CEA, Leti) Charpin, Christelle (christelle.charpin@cea.fr) Vogel, Tobias (Advanced Thin Film Technology Division, Institute of Materials S) Molina-Luna, Leopoldo (Advanced Electron Microscopy Division, Institute of Materials Sc) Suñé, Jordi (Departament d'Enginyeria Electrònica, Universitat Autònoma De Ba) Miranda, Enrique (Departament d'Enginyeria Electrònica, Universitat Autònoma De Ba)
4	11:15-11:30	Oral presentation	A Simulation Study of FET-Based Nanoelectrodes for Active Intracellular Neural Recordings	Leva, Federico (University of Modena) Palestri, Pierpaolo (University of Udine) selmi, luca (University of Udine)
5	11:30-11:45	Oral presentation	A FinFET Design for Superior High-Voltage Performance	Oh, Kyoungwan (Pohang University of Science and Technology) Kim, Hyangwoo (Pohang University of Science and Technology (POSTECH)) Kong, Byoung Don (Pohang University of Science and Technology (POSTECH)) Baek, Chang-Ki (POSTECH / CITES)
6	11:45-12:00	Oral presentation	Spin-Transfer Torque Magnetic Tunnel Junction Model Based on Fokker-Planck Equation for Stochastic Circuit Simulations	LIU, Haoyan (Waseda University) OHSAWA, Takashi (Waseda University)

ThBT3

Thursday, July 7, 2022, 10:30-12:00, Track T3, AB11

Quantum, Neuromorphic and
Unconventional Computing #2

Oral Session

#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Design and Analysis of a Majority Logic Based Imprecise 6-2 Compressor for Approximate Multipliers	Zhang, Yongqiang (Hefei University of Technology) He, Cong (Hefei University of Technology) Zhang, Tingting (University of Alberta) Han, Jie (University of Alberta) xie, guangjun (Hefei University of Technology)
2	10:45-11:00	Oral presentation	Circuit Topology and Synthesis Flow Co-Design for the Development of Computational ReRAM	Fernandez, Carlos (Universidad Tecnica Federico Santa Maria) Vourkas, Ioannis (Universidad Técnica Federico Santa María) Rubio, Antonio (Universitat Politècnica de Catalunya)
3	11:00-11:15	Oral presentation	A Resistance Switching Device Exhibiting Potentiation and Depression under the Same Voltage Polarity	Mannion, Daniel John (University College London) Ng, Wing H (University College London) Mehonic, Adnan (University College London) Kenyon, Anthony J (University College London)

4	11:15-11:30	Oral presentation	Quantum-Classical Variational Approaches with Single-Qubit Operation on Near-Term Quantum Processors	Miki, Tsukasa (Tokyo University of Agriculture and Technology) Tsukayama, Daisuke (Tokyo University of Agriculture and Technology) Okita, Ryo (Tokyo University of Agriculture and Technology) Shimada, Moe (Tokyo University of Agriculture and Technology) Shirakashi, Jun-ichi (Tokyo University of Agriculture and Technology)
5	11:30-11:45	Oral presentation	Dynamically Reconfigurable Cryogenic Spiking Neuron Based on Superconducting Memristor	Islam, Md Mazharul (University of Tennessee Knoxville) Alam, Shamiul (University of Tennessee Knoxville) Hossain, Md Shafayat (Princeton University) Aziz, Ahmedullah (University of Tennessee Knoxville)
6	11:45-12:00	Oral presentation	Intrinsic Temporal Behavior of TiO₂ Memristors for Neuromorphic Systems	Wang, Alexander-Hanyu (University of Southampton) Simanjuntak, Firman (University of Southampton) Huang, Ruomeng (University of Southampton) Chong, Harold (University of Southampton) Thomas, David (University of Southampton)

ThBT4		Thursday, July 7, 2022, 10:30-12:00, Track T4, AB12		
First Principles Modeling and Simulation of Plasma Processes for Atomic Scale Precision Semiconductor Device Fabrication: Opportunities and Challenges				Oral Session
Organizer: Ventzek, Peter (111591)		Tokyo Electron America, inc.		
Organizer: Longo, Roberto (111592)		Tokyo Electron America, Inc.		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	TDDFT study on excited electron dynamics in EUV photoresist chemical reactions	Lang, Xiuyao (University of Texas at Dallas) Cho, Kyeongjae (UT Dallas)
2	10:45-11:00	Oral presentation	First-principles investigations of the electronic properties of interfaces	Li, Hu (Tokyo Electron Technology Solutions Limited)
3	11:00-11:15	Oral presentation	Fine-Scale Structure of Nanocomposite Films Achieved by Plasma Synthesis of Successive Generations of Nanoparticles	Bérard, Rémi (LAPLACE and IRAP, Université de Toulouse III – Paul Sabatier, C) Garofano, Vincent (Laboratoire de physique des plasmas, Département de physique, Un) Stafford, Luc (Laboratoire de physique des plasmas, Département de physique, Un) Joblin, Christine (IRAP (Institut de Recherche en Astrophysique et Planétologie), U) Makasheva, Kremena (LAPLACE, CNRS, University of Toulouse)
4	11:15-11:30	Oral presentation	Etch Profile Simulations in a LELE Double Patterning Process	Panneerchelvam, Prem (KLA)

5	11:30-11:45	Oral presentation	Understanding the Surface Chemistry of Silicon Nitride Atomic Layer Deposition and Etching from First Principles	Hwang, Gyeong (University of Texas at Austin) Yang, Tsung-Hsuan (University of Texas at Austin) Cheng, Erik (University of Texas at Austin) Wang, Ting-Ya (University of Texas at Austin)
6	11:45-12:00	Oral presentation	Self-Limiting Etching and Deposition of Organic Surfaces	Longo, Roberto (Tokyo Electron America, Inc.) Ventzek, Peter (Tokyo Electron America, inc.)

ThBT5		Thursday, July 7, 2022, 10:30-12:00, Track T5, AB14		
The impact of 2D nanomaterials on green high-frequency technology				Oral Session
Organizer: Mencarelli, Davide (105943)		Università Politecnica delle Marche		
Organizer: Pierantoni, Luca (105940)		Università Politecnica delle Marche		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Modeling and Simulation of VO₂ (B) pseudocapacitor electrode for electrochemical energy storage applications	Noumi, Rihem (R&D engineer) Ishchenko, Olga M. (R&D manager) Doan, Phi Long (R&D Engineer)
2	10:45-11:00	Oral presentation	Exploring the effect of Yttrium as dopant agent in HfO₂ polymorphs: a DFT based study	Pavoni, Eleonora (Marche Polytechnic university) Mohebbi, Elaheh (Dipartimento di Scienze e Ingegneria Della Materia, dell'Ambiente ed Urbanistica (SIMAU), Marche Polytechnic University) Pierantoni, Luca (Università Politecnica delle Marche) Mencarelli, Davide (Università Politecnica delle Marche) Stipa, Pierluigi (Università Politecnica delle Marche) Laudadio, Emiliano (Marche Polytechnic university)
3	11:00-11:15	Oral presentation	The optical properties of VO₂(B) nanostructure: a first-principle comparative study	Mohebbi, Elaheh (Dipartimento di Scienze e Ingegneria Della Materia, dell'Ambiente ed Urbanistica (SIMAU), Marche Polytechnic University) Pavoni, Eleonora (Marche Polytechnic university) Pierantoni, Luca (Università Politecnica delle Marche) Mencarelli, Davide (Università Politecnica delle Marche) Stipa, Pierluigi (Università Politecnica delle Marche) Laudadio, Emiliano (Marche Polytechnic university)

4	11:15-11:30	Oral presentation	2D Molybdenum Disulfide (MoS₂) and Thin Molybdenum Trioxide (MoO₃) As Emitter Layers in Silicon Based Heterojunction Solar Cells	ZERBO, Bienlo Flora Christine (Univ Rennes, INSA Rennes, CNRS, Institut FOTON - UMR 6082, F-350)
5	11:30-11:45	Oral presentation	NANOMATERIALS ENABLING SMART ENERGY HARVESTING FOR NEXT-GENERATION INTERNET-OF-THINGS	Modreanu, Mircea (Tyndall National Institute)

ThBT9		Thursday, July 7, 2022, 10:30-12:00, Track T9, Aula Magna		
Nano-Biomedicine		Oral Session		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	Recent Advances and Challenges of Magnetic Scaffolds for Tumor Hyperthermia and Tissue Engineering	Lodi, Matteo Bruno (University of Cagliari, Italy)
2	10:45-11:00	Oral presentation	Functionalized Mesoporous Silica Nanoparticles for Drug Delivery to Glioblastoma Multiforme	Knezevic, Nikola (University of Novi Sad, Biosense institute) Ilic, Nebojsa (Technical University of Munich, Chair of Urban Water Systems Eng) Kaluderovic, Goran (University of Applied Sciences Merseburg)
3	11:00-11:15	Oral presentation	In-Situ Raman Spectroscopy Investigation on the Effect of Heat Treatment on a UDMA-TEGDMA Copolymer Nanocomposite Doped with Gold Nanorods	Bonyár, Attila (Budapest University of Technology and Economics) Borók, Alexandra (Budapest University of Technology and Economics) Szalóki, Melinda (Department of Biomaterials and Prosthetic Dentistry, Faculty of) Rigó, István (Wigner Research Centre for Physics) Veres, Miklos (Wigner Research Centre for Physics)
4	11:15-11:30	Oral presentation	An Early Diagnostic Nano Method for Chronic Kidney Disease Using Surface Enhanced Raman Spectroscopy	Hu, Daniel (Phillips Exeter Academy) Arthur, McClelland (Harvard University) Zeng, Tingying Helen (Academy for Advanced Research and Development)

5	11:30-11:45	Oral presentation	Classification of DNA Sequences: Performance Evaluation of Multiple Machine Learning Methods	Wang, Yiren (University of Washington) Khandelwal, Vikram (Interlake High School) Das, Arindam (Eastern Washington University) Anantram, Anant (University of Washington)
6	11:45-12:00	Oral presentation	Introduction of Nanoscale Positive Controls for Nanotoxicology: A New Aspect of Utilization of Stability-Enhanced Gold-Polyethyleneimine Conjugates (Au-PEIs)	Cho, Tae Joon (National Institute of Standards and Technology) Hackley, Vincent (National Institute of Standards and Technology) Reipa, Vytas (National Institute of Standards and Technology) Tona, Alessandro (National Institute of Standards and Technology) Sims, Christopher (National Institute of Standards and Technology) Farkas, Natalia (National Institute of Standards and Technology)

ThDT1		Thursday, July 7, 2022, 15:00-16:30, Track T1, AA11		
Nano-Materials #4		Oral Session		
#	Subslot	Type of presentation	Title	Authors
1	15:00-15:15	Oral presentation	Development and Characterization of Cellulose Nanocrystal Based Inks for 3D Bioprinting	Kuczvara, Patrick (University of Arkansas) 113506 Kandhola, Gurshagan (University of Arkansas) 113507 Kim, Jin-Woo (University of Arkansas)
2	15:15-15:30	Oral presentation	Nanomaterials	Honey, Shehla (University of Okara) Asim, Jamil (University of Okara) Kanwal, Sumera (University of Okara)
3	15:30-15:45	Oral presentation	Plastic waste bottles to white light emitting carbon dots	Perikala, Manasa (Student) Bhardwaj, Asha (Assistant Professor)
4	15:45-16:00	Oral presentation	Charge-Density-Wave Devices Printed with the Solution-Processed Inks of the Layered van der Waals Nanomaterials	Balandin, Alexander (University of California, Riverside)
5	16:00-16:15	Oral presentation	Nanomaterial-Enabled Soft Electronics	Zhu, Yong (North Carolina State University)
6	16:15-16:30	Oral presentation	Information-theoretic point symmetry classifications/quantifications of an electron diffraction spot pattern from a crystal with strong translational pseudosymmetry	Moeck, Peter (Portland State University)

ThDT2				Thursday, July 7, 2022, 15:00-16:30, Track T2, AA12
Modeling and Simulation #3				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	15:00-15:15	Oral presentation	Mechanistic aspects of the [BMIM][AOT]-assisted structural deformation at water/oil interface	BANERJEE, SHANKHA (INDIAN INSTITUTE OF TECHNOLOGY MADRAS) 11206
2	15:15-15:30	Oral presentation	An Improved Electro-Kinetic Model for Material Transport on Cr Thin Films	Ghosh, Swapnendu Narayan (Indian Institute of Science Education & Research Bhopal) Talukder, Santanu (Indian Institute of Science Education & Research Bhopal)
3	15:30-15:45	Oral presentation	Modeling and Simulation of DNA Origami based Electronic Read-only Memory	De, Arpan (Jadavpur University) Mohammad, Hashem (University of Washington) Wang, Yiren (University of Washington) Kubendran, Rajkumar (University of Pittsburg) Das, Arindam (Eastern Washington University) Anantram, Anant (University of Washington)
4	15:45-16:00	Oral presentation	Exploring the Stacking of Devices in a Vertical Nanowire to Implement IC	Amat, Esteve (Institute of Microelectronics of Barcelona) del Moral, Alberto (Institute of Microelectronics of Barcelona) Soler, Victor (Institute of Microelectronics of Barcelona) Bausells, Joan (Institute of Microelectronics of Barcelona) Perez-Murano, Francesc (IMB-CNM, CSIC)
5	16:00-16:15	Oral presentation	Determining the effect of material properties for tandem solar cell	Marwaha, Shikha (IIT Mandi) Ghosh, Kunal (IIT Mandi)
6	16:15-16:30	Oral presentation	Energy-Dependent Decoherent Charge Transport Model for DNA Structures	Mohammad, Hashem (University of Washington) Anantram, Anant (University of Washington)

ThDT3		Thursday, July 7, 2022, 15:00-16:30, Track T3, AB11			
Unconventional Computing: new Challenges for Nanotechnology		Oral Session			
Organizer: Puliafito, Vito (112658)		Politecnico di Bari, Italy			
#	Subslot	Type of presentation	Title	Authors	
1	15:00-15:15	Oral presentation	Physics-inspired Ising Computing with Ring Oscillator Activated p-bits	Aadit, Navid Anjum (University of California, Santa Barbara) Grimaldi, Andrea (University of Messina) Finocchio, Giovanni (Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy) Camsari, Kerem Y. (Department of Electrical and Computer Engineering, University of California, Santa Barbara, Santa Barbara, CA, 93106, USA)	
2	15:15-15:30	Oral presentation	VO2-based Oscillatory Ising Machine: The Role of External Temperature on Performance	Delacour, Corentin (LIRMM, University of Montpellier, France) Carapezzi, Stefania (LIRMM, University of Montpellier, CNRS) Todri-Sanial, Aida (LIRMM, University of Montpellier, CNRS)	
3	15:30-15:45	Oral presentation	Coherently Coupled Quantum Oscillators for Quantum Reservoir Computing	Dudas, Julien (Unité Mixte de Physique CNRS, Thales, Université Paris-Saclay) Grollier, Julie (Unité Mixte de Physique CNRS, Thales, Université Paris-Saclay) Markovic, Danijela (Unité Mixte de Physique CNRS, Thales, Université Paris-Saclay)	
4	15:45-16:00	Oral presentation	Computing with Memristor-Based Nonlinear Oscillators	Zoppo, Gianluca (Politecnico di Torino) Marrone, Francesco (Politecnico di Torino) bonnin, michele (politecnico di torino) Corinto, Fernando (Politecnico di Torino)	

5	16:00-16:15	Oral presentation	A Coherent Ising Machine Based on a Network of 100,000 Degenerate Optical Parametric Oscillator Pulses	Honjo, Toshimori (NTT Basic Research Laboratories, NTT Corporation) Inaba, Kensuke (NTT Basic Research Laboratories, NTT Corporation) Inagaki, Takahiro (NTT Basic Research Laboratories, NTT Corporation) Ikuta, Takuya (NTT Basic Research Laboratories, NTT Corporation) Yamada, Yasuhiro (NTT Basic Research Laboratories, NTT Corporation) Takesue, Hiroki (NTT Basic Research Laboratories, NTT Corporation)
6	16:15-16:30	Oral presentation	MemComputing vs. Quantum Computing: Some Analogies and Major Differences	Di Ventra, Massimiliano (University of California, San Diego)

ThDT4				
First Principles Modeling and Simulation of Plasma Processes for Atomic Scale Precision Semiconductor Device Fabrication: Opportunities and Challenges (Code 14y75) #2				
#	Subslot	Type of presentation	Title	Authors
1	15:00-15:15	Oral presentation	Aerosol-Assisted Plasma Deposition of Nanocomposite Thin Films	Clergereaux, Richard (Laplace-CNRS)
2	15:15-15:30	Oral presentation	Plasma Designed Hybrid Nanocarbons for Supercapacitors	Marath Santhosh, Neelakandan (Jožef Stefan Institute, Ljubljana) Cvelbar, Uroš (Jozef Stefan Institute, Slovenia)
3	15:30-15:45	Oral presentation	Real-Time Scale Modeling of Film Growth and Property of Silicon Nitride Atomic Layer Deposition by Microkinetic Modeling	Iwao, Toshihiko (Tokyo Electron America, Inc.)
4	15:45-16:00	Oral presentation	Reactor Scale Modeling for Atomic Layer Etch/Dep Processes	Raja, Laxminarayan (The University of Texas at Austin)
5	16:00-16:15	Oral presentation	Ab Initio Calculations of Electron Scattering from Molecules	Ambalampitiya, Harindranath Bandujeewa (Quantemol Ltd) Cooper, Bridgette (University College London) Dzarasova, Anna (Quantemol Ltd) Tennyson, Jonathan (University College London)

Thursday, July 7, 2022, 15:00-16:30, Track T4, AB12

Oral Session

6	16:15-16:30	Oral presentation	Multiscale Simulation on Plasma-Material Interaction: Industrial Plasma Processing	Kim, Byungjo (Samsung Electronics) Yoo, Suyoung (Samsung electronics) Jeong, Hyunhak (Samsung Electronics) Park, Taeuk (Samsung Electronics) Nam, Sang Ki (Samsung Electronics)
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ThDT5		Thursday, July 7, 2022, 15:00-16:30, Track T5, AB14		
Nanofabrication for Quantum Technologies		Oral Session		
Organizer: Perez-Murano, Francesc (106080)		IMB-CNM, CSIC		
Organizer: Amat, Esteve (112481)		Institute of Microelectronics of Barcelona		
#	Subslot	Type of presentation	Title	Authors
1	15:00-15:15	Oral presentation	Plug and play single photon sources	Alén, Benito (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Llorens, Josè Maria (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Fuster, David (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Navarro, Enrique (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Yolanda, González (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC))
2	15:15-15:30	Oral presentation	Self-Assembly for Advanced CMOS and Quantum Applications	Rademaker, Guido J. (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble) Pourteau, Marie-Line (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble, France) Marmiesse, Marie (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble, France) Rotsen, Ludwig (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble, France) Gharbi, Ahmed (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble, France) Bellot, Gaëtan (Univ. Montpellier, INSERM, CNRS, Centre de Biologie Structurale, Montpellier, France) Tiron, Raluca (Univ. Grenoble Alpes, CEA, Leti, F-38000 Grenoble, France)

3	15:30-15:45	Oral presentation	Self-assembling materials as a viable solution for deterministic doping of semiconductors	Perego, Michele (Consiglio Nazionale delle Ricerche (CNR))
4	15:45-16:00	Oral presentation	STRAIN-DRIVEN EPITAXY OF InAs QUANTUM DOT ARRAYS ON VIRTUAL Si NANOTEMPLATES	TEJEDOR, PALOMA (Instituto de Ciencia de Materiales de Madrid, CSIC)
5	16:00-16:15	Oral presentation	Fabrication of Silicon Nanowires as a Platform for experimentation in Quantum Technologies	Llobet, Jordi (Institute of Microelectronics of Barcelona (IMB-CNM CSIC)) Bricio-Blázquez, David (Institute of Microelectronics of Barcelona (IMB-CNM CSIC)) Bausells, Joan (Institute of Microelectronics of Barcelona) Perez-Murano, Francesc (IMB-CNM, CSIC)

ThDT9		Thursday, July 7, 2022, 15:00-16:30, Track T9, Aula Magna		
Nano-Biomedicine #2		Oral Session		
#	Subslot	Type of presentation	Title	Authors
1	15:00-15:15	Oral presentation	Identification of the Intermediates of Peptide Nanoassemblies Via the Slow-Motion Self-Assembly of Heterochiral Peptides	LIM, YONG-BEOM (Yonsei University)
2	15:15-15:30	Oral presentation	Photothermal treatment of pancreatic cancer with IgG-conjugated gold nanoparticles initiates Golgi Apparatus-ER dysfunction and caspase-3 apoptotic pathway activation by selective targeting	Mocan, Lucian (Regional Institute of Gastroenterology-Hepatology Cluj-Napoca) Bura, Cristina (University of Medicine and Pharmacy Iuliu Hatieganu Cluj-Napoca) Gonciar, Diana (University of Medicine and Pharmacy Cluj-Napoca) Tibre, Corina (Universitatea de Medicina si Farmacie iuliu Hatieganu Cluj-Napoca) Nedelcu-Popa, Andreea (Regional Institute of Gastroenterology-Hepatology Cluj-Napoca) Mocan, Teodora (University of Medicine and Pharmacy Cluj-Napoca)
3	15:30-15:45	Oral presentation	NanoFrazor Technology: Enabling Unique Nanoelectronics and Nanophotonics Device Fabrication	Chaaban, Jana (Heidelberg Instruments Nano AG) Hendricks, Nicholas (Heidelberg Instruments Nano) Çağın, Emine (Heidelberg Instruments Nano)

4	15:45-16:00	Oral presentation	Hybrid Nanoparticles as XFCT-MRI Contrast Agents for Correlative Bioimaging	Saladino, Giovanni Marco (KTH Royal Institute of Technology) Shaker, Kian (KTH Royal Institute of Technology) Kilic, Nuzhet Inci (KTH Royal Institute of Technology) Vogt, Carmen (KTH Royal Institute of Technology) Brodin, Bertha (KTH Royal Institute of Technology) Arsenian-Henriksson, Marie (Karolinska Institute) Toprak, Muhammet Sadaka (KTH Royal Institute of Technology) Hertz, Hans Martin (KTH Royal Institute of Technology)
5	16:00-16:15	Oral presentation	PISA Nanoparticles As Drug Delivery Systems for Blood and Brain Barrier Permeation	Epitropaki, Eirini (University of Birmingham) Parkinson, Sam (University of Birmingham) Rosa, Susana (Center for Neuroscience and Cell Biology (CNC), University of Co) O'Reilly, Rachel (University of Birmingham) Ferreira, Lino (Center for Neuroscience and Cell Biology (CNC), University of Co)
6	16:15-16:30	Oral presentation	Chitosan/cyclodextrin surface-adsorbed naringenin-loaded nanocapsules enhance bacterial quorum quenching and anti-biofilm activities	Nguyen, Thanh Hao (Faculty of Biotechnology, Vietnam National University of Agriculture) Hensel, Andreas (Institut für Pharmazeutische Biologie und Phytochemie (IPBP)) Goycoolea, Francisco (School of Food Science and Nutrition, University of Leeds)

ThET1		Thursday, July 7, 2022, 17:00-18:30, Track T1, AA11		
Infrared photodetection and intelligent perception				Oral Session
Organizer: Hu, Weida (112896)		Shanghai Institute of Technical Physics, Chinese Academy of Science		
#	Subslot	Type of presentation	Title	Authors
1	17:00-17:15	Oral presentation	Advanced 2D-Materials Integrated Fiber Optic Biosensors	Chen, Xianfeng (Nottingham Trent University)
2	17:15-17:30	Oral presentation	Nonlinear Photonics in Two-dimensional Layered Materials with IR light	sun, zhipei (Aalto University)
3	17:30-17:45	Oral presentation	Ultra-sensitive Bolometer for Microwave Photon Detection using Graphene Josephson Junction as Thermometer	Hakonen, Pertti Juhani (Aalto University)
4	17:45-18:00	Oral presentation	Semiconductor nanowire-based quantum materials for advanced optoelectronics	zhuang, qiandong (Lancaster University)
5	18:00-18:15	Oral presentation	Hybrid Photodetection Mechanisms Tuned with Tunneling	Yoon, Hoon Hahn (Aalto University) Fernandez, Henry A. (Aalto University) Nigmatulin, Fedor (Aalto University) Dai, Yunyun (Beijing Institute of Technology) Ahmed, Faisal (Aalto University) Cui, Xiaoqi (Aalto University) Bai, Xueyin (Aalto University) Li, Diao (Aalto University) Du, Mingde (Aalto University) Lipsanen, Harri (Aalto University) sun, zhipei (Aalto University)

6	18:15-18:30	Oral presentation	III-V Semiconductor Nanowire Infrared Photodetectors	Fu, Lan (The Australian National University)
7	18:15-18:30	Oral presentation	Novel optoelectronic devices based on two-dimensional layered materials	Xiao, Sanshui (Technical University of Denmark)

ThET2				Thursday, July 7, 2022, 17:00-18:30, Track T2, AA12
Nano Energy				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	17:00-17:15	Oral presentation	Comparison of NiM₂O₄ (M:Fe,Mn) Nanofibers as Anode for Li-ion Batteries	SARF, Fatma (Canakkale Onsekiz Mart University) Eroğlu, Ömer (İstanbul Technical university) Kızıl, Hüseyin (İstanbul Technical university)
2	17:15-17:30	Oral presentation	POM-2D material hybrids for photo/electrochemical CO₂ conversion	Khezri, Bahareh (Institut Català d'Investigació Química-ICIQ)
3	17:30-17:45	Oral presentation	Thermoelectric properties of Bismuth Oxyselenide	Yip, Weng Hou (NTU) Fu, Qundong (NTU) Wang, Xingli (NTU) tay, beng kang (Nanyang Technological University) mohamed, boutchich (Sorbonne University)
4	17:45-18:00	Oral presentation	Synergistic Energy Harvesting by Composites of Flexoelectric Zn: Al-LDH Nanosheets and Piezoelectric MAPbI₃ and ZnO Films	Yoon, Soon-Gil (Chungnam National University)
5	18:00-18:15	Oral presentation	Scalable Nanomanufacturing and Printing of High-Performance and Flexible Thermoelectric Energy Devices	Zhang, Yanliang (University of Notre Dame)
6	18:15-18:30	Oral presentation	Evaluation of the electrochemical performances of different Mn Zn based oxides as cathode materials for Zinc-Ion Batteries	Bekkar, Lounis (LSPM Sorbonne Paris Nord)

ThET3 Thursday, July 7, 2022, 17:00-18:30, Track T3, AB11

**Plasma-free anisotropic etching of semiconductors:
MacEtch and related nanotechnology** Oral Session

Organizer: Li, Xiuling (112885) University of Texas at Austin

#	Subslot	Type of presentation	Title	Authors
1	17:00-17:15	Oral presentation	Macroscale structuring of Si by the metal-assisted chemical etching (MacEtch)	Khang, Dahl-Young (Yonsei University)
2	17:15-17:30	Oral presentation	MacEtch for photonic crystals and optoelectronics	Zhou, Weidong (University of Texas at Arlington) Li, Xiuling (University of Texas at Austin)
3	17:30-17:45	Oral presentation	Sustainable Manufacturing Process for Wafer-Scale Uniform Semiconductor Nanostructures	Kim, You Jin (Nanyang Technological University) Shin, Sang-Ho (Nanyang Technological University) Zhao, Zhi-Jun (Southwest Jiaotong University) Jeong, Jun-Ho (Korea Institute of Machinery & Materials) Kim, Munho (Nanyang Technological University)
4	17:45-18:00	Oral presentation	Etch Front Profile in Uniform Metal-assisted Chemical Etching	Liyi, Li (Southeast University)
5	18:00-18:15	Oral presentation	Using MACE to Define Porous Nanostructures for Biomedicine	Voelcker, Nicolas (Monash University)
6	18:15-18:30	Oral presentation	High aspect ratio structuring of silicon by metal assisted chemical etching	Romano, Lucia (ETH Zurich and PSI)

ThET5		Thursday, July 7, 2022, 17:00-18:30, Track T5, AB14		
Nanofabrication for Quantum Technologies (Code rgw2w) #2				Oral Session

#	Subslot	Type of presentation	Title	Authors
1	17:00-17:15	Oral presentation	Towards quantum devices based on hybrid superconductor-semiconductor nanostructures	Lee, Eduardo (Universidad Autonoma de Madrid)
2	17:15-17:30	Oral presentation	Spatially controlled and deterministic ion implantation by focused ion beam for generation of color centers in diamond	Giubertoni, Damiano (Fondazione Bruno Kessler)
3	17:30-17:45	Oral presentation	Genetic-Algorithm-Based Simulation of Self-Assembled Quantum Dot Photoluminescence Spectra	Barbieri, Giulio (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Llorens, Josè Maria (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC)) Stanojević, Lazar (Institute for Optoelectronic Systems and Microtechnology (ISOM),) Gallego Carro, Alejandro (Institute for Optoelectronic Systems and Microtechnology (ISOM),) Ulloa, Josè Maria (Institute for Optoelectronic Systems and Microtechnology (ISOM),) Alén, Benito (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC (CEI UAM+CSIC))

4	17:45-18:00	Oral presentation	Nano-Engineered High-Temperature Superconductors for Functional Quantum Devices	Palau, Anna (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Alcalá, Emmanuel (ITESO) Barrera, Aleix (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Günkel, Thomas (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Balcells Argemí, Lluís (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)) Mestres, Narcís (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC))
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ThET9				Thursday, July 7, 2022, 17:00-18:30, Track T9, Aula Magna
Nano-Biomedicine #3				Oral Session
#	Subslot	Type of presentation	Title	Authors
1	17:00-17:15	Oral presentation	Novel connective tissue growth factor (CTGF)-loaded alginate and alginate sulfate/polycaprolactone nanoparticles with promising wound healing activity	Karam, Mia (American University of Beirut) Faraj, Marwa (American University of Beirut) Mhanna, Rami (American University of Beirut) Jaffa, Ayad (American University of Beirut)
2	17:15-17:30	Oral presentation	Peptide-Functionalized Nanocapsules: From Design and Synthesis to in Vitro Tests	Delia, Rata ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Cadinoiu, Anca Niculina ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Atanase, Leonard Ionut ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Calin (Mihalache), Gabriela ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa) Popa, Marcel ("Apollonia" University of Iasi, Faculty of Medical Dentistry, Pa)
3	17:30-17:45	Poster presentation	Water-Based Synthesis of Hybrid Contrast Agents for Theranostics	Cortés García, Daniel (Kungliga Tekniska högskolan) Saladino, Giovanni Marco (KTH Royal Institute of Technology) Toprak, Muhammet Sadaka (KTH Royal Institute of Technology)
4	17:45-18:00	Poster presentation	Core-Shell Superparamagnetic Iron Oxide Nanoclusters for Bioconjugation	Kakadiya, Ronak (KTH Royal Institute of Technology) Saladino, Giovanni Marco (KTH Royal Institute of Technology) Toprak, Muhammet Sadaka (KTH Royal Institute of Technology)
5	18:00-18:15	Oral presentation	New Perspectives on Drug-Free Antimicrobial/ Antibiofilm Mechanisms Enabled by 2D Nanomaterial Surfaces	Shokuhfar, Tolou (University of Illinois at Chicago)

6	18:15-18:30	Oral presentation	Nanorods for Lighting and Display	Srivastava, Abhishek Kumar (Hong Kong University of Science and Technology) KANG, chengbin (Hong Kong University of Science and Technology, Hong Kong) Prodanov, Maksym (Hong Kong University of Science and Technology)
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ThCT7				Thursday, July 7, 2022, 12:00-12:30, Track T7, Cafeteria
Poster Session 2				Poster Session
#	Subslot	Type of presentation	Title	Authors
1	12:00-12:30	Poster presentation	Trace PFAS Detection in Water Sources Using Silver Nanoparticles for Surface-Enhanced Raman Spectroscopy (SERS)	Huang, Tom (Wellesley High School, Massachusetts) Arthur, McClelland (Harvard University) Zeng, Tingying Helen (Academy for Advanced Research and Development)
2	12:00-12:30	Poster presentation	Comparison of Different Approaches Used for Estimation of Electrostatics in UTB Devices	Mishra, Nalin Vilochan (IISER Bhopal) Kansal, Harshit (Indian Institute of Science Education and Research Bhopal) Solanki, Ravi (INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHOPAL) Medury, Aditya Sankar (Indian Institute of Science Education and Research, Bhopal)
3	12:00-12:30	Poster presentation	GQD As a Probe and Graphene Oxide (GO)-Au/Ag Nanocomposites for Enhanced Sensitivity and Rapid Detection of Escherichia Coli and Staphylococcus Aureus	Sirdeshmukh, Vedashree (Department of Applied Sciences, College of Engineering Pune, Pune) Mane, Ketan (Department of Metallurgy and Material Science, College of Engine) Shukla, Mahima (School of Biology, MIT World Peace University, Dr. Vishwanath Ka) Bhagvat, Prateeksha (School of Biology, MIT World Peace University, Dr. Vishwanath Ka) Sharma, Ruchika (School of Biology, MIT World Peace University, Dr. Vishwanath Ka) Kambale, Sampada (School of Biology, MIT World Peace University, Dr. Vishwanath Ka) Kale, Anup (MIT - World Peace University)
4	12:00-12:30	Oral presentation	Emission Characteristics of Cs₄PbBr₆-CsPbBr₃ Composite Nanocrystals	Bhardwaj, Asha (Assistant Professor) Goswami, Chandrima (IISc Bangalore)

5	12:00-12:30	Poster presentation	Tuneable Breakdown Voltage in Amorphous Silicon P-I-N Photo-detectors for Single Photon Imaging	Panda, Soumya Shatakshi (University of Siegen) Li, Zidu (University of Siegen) Choubey, Bhaskar (University of Siegen)
6	12:00-12:30	Poster presentation	Fabrication and Characterization of Self-Assembled Thin Films with Cerium Dioxide Nanoparticles and Polymer	Topasna, Daniela (Virginia Military Institute) Lopez, Martin (Virginia Military Institute) Mateja, Frank (Virginia Military Institute) Daigneau, Timothy (Virginia Military Institute)
7	12:00-12:30	Poster presentation	Improvement in Non-Volatile Ferroelectric Storage Properties of Metal-Ferroelectric-Insulating-Silicon (MFIS) FETs Using Al-LiNbO₃-HfO₂-Si Structure	Debnath, Ajit (Indian Institute of Information Technology - Allahabad) Kumar Lalwani, Suraj (Indian Institute of Information Technology - Allahabad) Singh, Sanjai (Indian Institute of Information Technology - Allahabad) Sunny, Sunny (Indian Institute of Information Technology - Allahabad)
8	12:00-12:30	Poster presentation	Fantastic Bonding: Makes Fabrication on Kapton Films Effortless for 2D Material Devices	Yarajena, Sai Saraswathi (Indian Institute of Science, Bengaluru) Naik, Akshay (Indian Institute of Science, Bengaluru)
9	12:00-12:30	Poster presentation	GLAD synthesized WO₃ Nanowire arrays using RF Sputtering	Singh, Atul Kumar (National Institute of Technology Nagaland) Chetri, Priyanka (National Institute of Technology Nagaland) Dhar, Jay Chandra (National Institute of Technology Nagaland)
10	12:00-12:30	Poster presentation	Obtaining Cu₂O Nanoparticles Doped with Lanthanum, Magnesium and Manganese Using a Displacement Reaction	Guzman, Maribel (PUCP) Wei, Tian (Western University) Chantal, Walker (Western University) Jose E., Herrera (Western University)
11	12:00-12:30	Poster presentation	Exploration of Biosensing Mechanism for All-Carbon-Nanotube Thin-Film Transistors	Ren, Qinqi (Peking University) Ma, Shenhui (Peking University) wang, Xiao-fang (Peking University) Zhang, Yiming (Peking University Shenzhen)

				Graduate School) Zhang, Min (Peking University)
12	12:00-12:30	Poster presentation	Large-Scale Quantum Computing: A Perspective on Superconducting and Silicon Spin Technologies	Nikandish, Reza (University College Dublin)
13	12:00-12:30	Poster presentation	Ultra Low-Energy Charge Trapping MOSFET with Neuro-Inspired Learning Capabilities	Kumar, Abhash (National Institute of Technology Patna) Kamal, Alok Kumar (Indian Institute of Technology Patna) Singh, Jawar (Indian Institute of Technology Patna) Gupta, Bharat (National Institute of Technology Patna)
14	12:00-12:30	Poster presentation	Effect of AC Magnetic Field on Single Qubit Gate Operation in Noisy Environment	Tiwari, Yash (Indian Institute of Technology) Sarkar, Tanmay (Indian Institute of Technology, Roorkee,) Poonia, Vishvendra Singh (Indian Institute of Technology, Roorkee,)

CONFERENCE DAY 3: Detailed Program

Friday, July 8 2022

FrBT1		Friday, July 8, 2022, 10:30-12:30, Track T1, Aula Magna		
Nano-Biomedicine #4		Oral Session		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:50	Oral presentation	Functional nanoparticles based on <i>Osmundea</i> sp. Polysaccharides for drug delivery	Miguel, Sónia (Polytechnic Institute of Guarda) Loureiro, Jorge (Polytechnic Institute of Guarda) P. Ribeiro, Maximiano (CPIRN-IPG—Center of Potential and Innovation of Natural Resources, Polytechnic Institute of Guarda, Av. Dr. Francisco de Sá Carn) Coutinho, Paula (Polytechnic Institute of Guarda)
2	10:50-11:10	Oral presentation	Reduced Graphene Oxide-Based Biosensor for the Cost-Effective Detection of COVID-19	Kadadou, Dana (Khalifa University) Tizani, Lina (Khalifa University) S. Wadi, Vijay (Khalifa University) Banat, Fawzi (Khalifa University) Alsafar, Habiba (Khalifa University) F. Yousef, Ahmed (Khalifa University) W. Hasan, Shadi (Khalifa University)
3	11:10-11:30	Oral presentation	Silver and zinc oxide nanoparticles from <i>Fusarium solani</i>: biosynthesis, properties, and antimicrobial activity.	Trzcińska-Wencel, Joanna (Nicolaus Copernicus University in Torun) Wypij, Magdalena (Nicolaus Copernicus University) Rai, Mahendra (Uniwersytet Mikołaja Kopernika) Wachnowicz, Bartosz (Nicolaus Copernicus University in Torun) Golińska, Patrycja (Uniwersytet Mikołaja Kopernika)
4	11:30-11:50	Oral presentation	Magnetic iron oxide nanoparticles for the delivery of thermal therapy for the treatment of primary aldosteronism	Sorushanova, Anna (NUI Galway)

5	11:50-12:10	Oral presentation	Size-specific bacterial response to surface-adsorbed silica nanoparticles	Rajendran, Kavya (Department of Bioengineering, Faculty of Engineering, McGill University, Québec, H3A 0E9, Canada) Sudalaiyadum Perumal, Ayyappasamy (McGill University) Mahmoodi, Zahra (Department of Bioengineering, Faculty of Engineering, McGill University, Québec, H3A 0E9, Canada) Nicolau, Dan V. (McGill University)
6	12:10-12:30	Oral presentation	Natural Bactericidal Nano-Patterns of Cicadas Which Live in Japan	Ito, Takeshi (Kansai University) Adachi, Yuto (Kansai University) Shimizu, Tomohiro (Kansai University) Shingubara, Shoso (Kansai University)

FrBT2		Friday, July 8, 2022, 10:30-12:30, Track T2, AA23		
State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era				Oral Session
Organizer: Ascoli, Alon (112908)		Technische Universität Dresden		
Organizer: Menzel, Stephan (100987)		Forschungszentrum Juelich GmbH		
Organizer: Tetzlaff, Ronald (112909)		Technische Universität Dresden		
Organizer: Kang, Sung-Mo (113000)		Jack Baskin School of Engineering, University of California at Santa Cruz		
Organizer: Rubio, Antonio (101281)		Universitat Politècnica de Catalunya		
Organizer: Sirakoulis, Georgios Ch. (111639)		Democritus University of Thrace		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:50	Oral presentation	Stochastic Resonance Effect in Binary STDP Performed by RRAM Devices	Salvador, Emili (Universitat Autònoma de Barcelona) Rodriguez, Rosana (Universitat Autònoma de Barcelona) Martin-Martinez, Javier (Universitat Autònoma de Barcelona) Rubio, Antonio (Universitat Politècnica de Catalunya) Ntinas, Vasileios (Universitat Politècnica de Catalunya) Sirakoulis, Georgios Ch. (Democritus)

2	10:50-11:10	Oral presentation	Multi-Level Random Telegraph Noise Analysis on MIS and MIOS Silicon Nitride Memristors	Nikolaos, Vasileiadis (NCSR Demokritos) Loukas, Panagiotis (Institute of Nanoscience and Nanotechnology, NCSR Demokritos) Mavropoulis, Alexandros (Institute of Nanoscience and Nanotechnology, NCSR Demokritos) Normand, Pascal (Institute of Nanoscience and Nanotechnology, NCSR Demokritos) Karafyllidis, Ioannis (Democritus University of Thrace) Sirakoulis, Georgios Ch. (Democritus University of Thrace) Dimitrakis, Panagiotis (NCSR Dimokritos)
3	11:10-11:30	Oral presentation	Deep Memristive Cellular Neural Networks for Image Classification	Horvath, Andras (Pazmany Peter Catholic University) Ascoli, Alon (Technische Universität Dresden) Tetzlaff, Ronald (Technische Universität Dresden)
4	11:30-11:50	Oral presentation	A Mathematical Formulation of the Wire Resistance Problem in Memristor Crossbars	Zoppo, Gianluca (Politecnico di Torino) Korkmaz, Anil (Department of Electrical and Computer Engineering, Texas A&M Un) Marrone, Francesco (Politecnico di Torino) Yi, Su-in (Department of Electrical and Computer Engineering, Texas A&M Un) Palermo, Samuel (Department of Electrical and Computer Engineering, Texas A&M Un) Williams, R. Stanley (Department of Electrical and Computer Engineering, Texas A&M Un) Corinto, Fernando (Politecnico di Torino)
5	11:50-12:10	Oral presentation	Towards Efficient RRAM-based Quantized Neural Networks Hardware: State-of-the-art and Open Issues.	Krestinskaya, Olga (King Abdullah University of Science and Technology (KAUST)) Zhang, Li (King Abdullah University of Science and Technology (KAUST)) Salama, Khaled Nabil (King Abdullah University of Science and Technology (KAUST))

6	12:10-12:30	Oral presentation	Direct Comparison of the SET Kinetics of a TiOx/Al2O3-Based Memristive Cell in Filamentary and Area-Mode	Aussen, Stephan (Forschungszentrum Jülich GmbH and JARA-FIT, Jülich, Germany and) Cüppers, Felix (FZ Jülich GmbH) 113041 Waser, Rainer (RWTH Aachen University) Hoffmann-Eifert, Susanne (Forschungszentrum Juelich GmbH)
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FrBT3		Friday, July 8, 2022, 10:30-12:30, Track T3, AA24		
Emerging Technologies: From Theory to Large-scale Realization Challenges of Quantum Computers				Oral Session
Organizer: Kotlyar, Roza (112897)		Intel Corporation		
Organizer: Gyure, Mark (111652)		UCLA		
#	Subslot	Type of presentation	Title	Authors
1	10:30-10:50	Oral presentation	Germanium for Quantum Information Processing	Scappucci, Giordano (TU Delft)
2	10:50-11:10	Oral presentation	Tackling the quantum device characterization bottleneck	Rol, Michiel Adriaan (Orange Quantum Systems)
3	11:10-11:30	Oral presentation	Electrical noise and gate fidelities of spin qubits	Simion, George (imec) Shehata, Mohamed (IMEC Leuven)

4	11:30-11:50	Oral presentation	Effects of device confinement and electrostatics on spin qubit array performance	Kotlyar, Roza (Intel Corporation) Premaratne, Shavindra (Intel Corporation) Zheng, Guoji (Intel Corporation) Corrigan, Joelle (Intel Corporation) WATSON, THOMAS (Intel Corporation) Pillarisetty, Ravi (Intel Corporation) Henry, Eric (Intel Corporation) George, Hubert (Intel Corporation) Lampert, Lester (Intel Corporation) Neyens, Samuel (Intel Corporation) Zietz, Otto (Intel Corporation) Bojarski, Stephanie (Intel Corporation) Clarke, James (Intel Corporation)
5	11:50-12:10	Oral presentation	High-fidelity quantum computing with spins in semiconductor nanostructures	Burkard, Guido (University of Konstanz)

FrDT1		Friday, July 8, 2022, 14:30-16:30, Track T1, AA02		
State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era (Code 6g82g) #2				Oral Session
Organizer: Ascoli, Alon (112908)		Technische Universität Dresden		
Organizer: Menzel, Stephan (100987)		Forschungszentrum Juelich GmbH		
Organizer: Tetzlaff, Ronald (112909)		Technische Universität Dresden		
Organizer: Kang, Sung-Mo (113000)		Jack Baskin School of Engineering, University of California at Santa Cruz		
Organizer: Rubio, Antonio (101281)		Universitat Politècnica de Catalunya		
Organizer: Sirakoulis, Georgios Ch. (111639)		Democritus University of Thrace		
#	Subslot	Type of presentation	Title	Authors
1	14:30-14:50	Oral presentation	Hybrid Neurotransistors Based on Silicon Nanowires Modified with Polarizable Films	Ibarlucea, Bergoi (TU Dresden) Panés-Ruiz, Luis Antonio (TU Dresden) Cuniberti, Gianarelio (TU Dresden)
2	14:50-15:10	Oral presentation	Threshold Switch Assisted Memristive Memory with Enhanced Read Distinguishability	Alam, Shamiul (University of Tennessee Knoxville) Islam, Md Mazharul (University of Tennessee Knoxville) Hutchins, Jack (University of Tennessee Knoxville) Cady, Nathaniel (SUNY Polytechnic Institute) Gupta, Sumeet (Purdue University) Rose, Garrett (University of Tennessee Knoxville) Aziz, Ahmedullah (University of Tennessee Knoxville)

3	15:10-15:30	Oral presentation	ImageSplit: Modular Memristive Neural Network	M, Elamparthy (Indian Institute of Information Technology and Management Kerala) R, CHITHRA (Maker Village) James, Alex (IIITM-K (Digital University Kerala))
4	15:30-15:50	Oral presentation	Unconventional Logic on Unipolar CBRAM Based Oscillators	Chatzinikolaou, Theodoros Panagiotis (Democritus University of Thrace) Fyrigos, Iosif-Angelos (Democritus University of Thrace) Kitsios, Stavros (National Technical University of Athens) Bousoulas, Panagiotis (National Technical University of Athens) Tsompanas, Michail-Antisthenis (Democritus University of Thrace) Tsoukalas, Dimitris (National Technical University of Athens,) Sirakoulis, Georgios Ch. (Democritus University of Thrace)
5	15:50-16:10	Oral presentation	Stochastic Resonance Exploration in Current-Driven ReRAM Devices	Cirera, Albert (Universitat de Barcelona) Vourkas, Ioannis (Universidad Técnica Federico Santa María) Rubio, Antonio (Universitat Politècnica de Catalunya) Perez, Marcelo (Universidad Tecnica Federico Santa Maria)
6	16:10-16:30	Oral presentation	Bidirectional Transition between Threshold and Bipolar Switching in Ag/SiO₂/ITO Memristors	Li, Zidu (University of Siegen) Börner, Phil (University of Siegen) Schmidt, Heide-Marie (Friedrich-Schiller University of Jena) Haring Bolívar, Peter (University of Siegen) Choubey, Bhaskar (University of Siegen)

FrDT2

Friday, July 8, 2022, 14:30-16:30, Track T2, AB04

Special Session on Internet of Nanorobotic Things (IoNT) for Nano-Biomedicine

Oral Session

Organizer: Shi, Shaolong (109619)

Yangtze Delta Region Institute (Quzhou), University of Electronic Science and Technology of China

Organizer: CHEN, YIFAN (109074)

University of Electronic Science and Technology of China

Organizer: Cheang, U Kei (109663)

Southern University of Science and Technology

#	Subslot	Type of presentation	Title	Authors
1	14:30-14:50	Oral presentation	Analog Nanobiosensing of Continuous Disease State: System Models and Relationships to Fuzzy Set Theory	CHEN, YIFAN (University of Electronic Science and Technology of China) Wu, Mengfei (University of Electronic Science and Technology of China) Shi, Shaolong (Yangtze Delta Region Institute (Quzhou), University of Electroni)
2	14:50-15:10	Oral presentation	A Full-Time-Utilization Optimization Approach for Computational Nanobiosensing	Shi, Shaolong (Yangtze Delta Region Institute (Quzhou), University of Electroni) Wang, Zhijing (University of Electronic Science and Technology of China) CHEN, YIFAN (University of Electronic Science and Technology of China) Liu, Qiang (University of Electronic Science and Technology of China) Zhang, Qingfu (City University of Hong Kong)
3	15:10-15:30	Oral presentation	Fabrication and control of achiral micro/nanoswimmers for biomedical applications	Cheang, U Kei (Southern University of Science and Technology)
4	15:30-15:50	Oral presentation	Multi-Contrast-Agent Strategy for Optimal Tumor Classification Using Fuzzy-Inspired Nanobiosensing	GONG, ZHENG (The University of Waikato) Niyigena Ingabire, Honorine (University of Electronic Science and Technology of China)

5	15:50-16:10	Oral presentation	Nanobiosensing from an in Vivo Multi-Objective Optimization Perspective	Jiang, Zhaoyang (University of Electronic Science and Technology of China) Shi, Shaolong (Yangtze Delta Region Institute (Quzhou), University of Electroni) CHEN, YIFAN (University of Electronic Science and Technology of China) Yao, Shuaiting (University of Electronic Science and Technology of China)
6	16:10-16:30	Oral presentation	Swarming biocompatible nanobots for biomedical applications	Sánchez Ordóñez, Samuel (Ibec)

FrET1		Friday, July 8, 2022, 16:30-18:30, Track T1, AA02		
State-of-the-Art, Open Issues, and Future Trends on Resistance Switching Memories: The Enabling Nanotechnologies for the More-than-Moore Era (Code 6g82g) #3				Oral Session
Organizer: Ascoli, Alon (112908)		Technische Universität Dresden		
Organizer: Menzel, Stephan (100987)		Forschungszentrum Juelich GmbH		
Organizer: Tetzlaff, Ronald (112909)		Technische Universität Dresden		
Organizer: Kang, Sung-Mo (113000)		Jack Baskin School of Engineering, University of California at Santa Cruz		
Organizer: Rubio, Antonio (101281)		Universitat Politècnica de Catalunya		
Organizer: Sirakoulis, Georgios Ch. (111639)		Democritus University of Thrace		
#	Subslot	Type of presentation	Title	Authors
1	16:30-16:50	Oral presentation	Performing Stateful Logic Using Spin-Orbit Torque (SOT) MRAM	Hoffer, Barak (Technion - Israel Institute of Technology) Kvatinsky, Shahar (Technion - Israel Institute of Technology)
2	16:50-17:10	Oral presentation	Improved switching performance of a Molybdenum Oxide-based bi-layer resistive memory	Zhang, Tongjun (University of Southampton)

3	17:10-17:30	Oral presentation	Shape-Based Activation Functions in Magnetic Domain Wall Leaky Integrate-and-Fire Neurons for Artificial Intelligence Applications	Brigner, Wesley (The University of Texas at Dallas) Hassan, Naimul (UT Dallas) HU, Xuan (the University of Texas at Dallas) Bennett, Christopher (Sandia National Laboratories) Garcia-Sanchez, Felipe (University of Salamanca) Cui, Can (The University of Texas at Austin) Velasquez, Alvaro (Air Force Research Laboratory) Marinella, Matthew (Arizona State University) Incorvia, Jean Anne (Stanford University) Friedman, Joseph (University of Texas at Dallas)
4	17:30-17:50	Oral presentation	Studying Multifunctional Materials with Nano-Heterogeneities	Slavova, Angela (Institute of Mathematics and Informatics, Bulgarian Academy of S) Ignatov, Ventsislav (Ruse University)
5	17:50-18:10	Oral presentation	From Silence to Regular Beating in the Simplest Ever-Reported Array of Excitable Cells	Ascoli, Alon (Technische Universität Dresden) Demirkol, Ahmet Samil (TU Dresden) Tetzlaff, Ronald (Technische Universität Dresden) Chua, Leon (University of California Berkeley)
6	18:10-18:30	Oral presentation	Analog In-Memory Computing with Emerging Nanodevices	Xia, Qiangfei (University of Massachusetts Amherst)

FrCT7

Friday, July 8, 2022, 14:00-14:30, Track T7, Cafeteria

Poster Session 3

Poster Session

Chair:

Co-Chair:

#	Subslot	Type of presentation	Title	Authors
1	14:00-14:30	Poster presentation	Chemical Activation of Recycled Carbon Fibres for Application As Porous Adsorbents in Aqueous Media	Taylor, Jessica (Brunel University, London) Babamohammadi, Shervan (Brunel University London) Troisi, Gera (Brunel university London) Masoudi Soltani, Salman (Brunel University London)
2	14:00-14:30	Poster presentation	Nanosensing of a miRNA Biomarker for COVID-19 Patients Suffering Cerebrovascular Problems	Lei, Jiaming (Boston University Academy) Arthur, McClelland (Harvard University) Zeng, Tingying Helen (Academy for Advanced Research and Development)
3	14:00-14:30	Poster presentation	Using Polymeric Nanoformulations for Directed Self-Assembly of Indigo Carmine	Matsanov, Pnina (ORT Braude College) Maor, Inbal (ORT Braude College) Shumilin, Ilan (The Hebrew University) Harries, Daniel (The Hebrew University) Weitz, Iris (ORT Braude Colleg, Department of Biotechnology Engineering)
4	14:00-14:30	Poster presentation	Pulse-Driven Analog Circuits Containing Memristors in the Light of Generalized Concept of Duality	Biolek, Dalibor (University of Defence Brno) Biolek, Zdeněk (Brno University of Technology) Biolková, Viera (Brno University of Technology) Kolka, Zdeněk (Brno University of Technology)
5	14:00-14:30	Poster presentation	Synthesis of Silver Nanoparticles by Vitamin C for Public Health Applications	Lei, Jiaming (Boston University Academy) Arthur, McClelland (Harvard University) Zeng, Tingying Helen (Academy for Advanced Research and Development)

#	Subslot	Type of presentation	Title	Authors
6	14:00-14:30	Poster presentation	Plasmonic Fiberoptic Absorbance Biosensor (P-FAB) for Evaluation of the Antibody Stability Upon Evanescent Wave Excitation at 280 Nm	J, kuzhandai Shamlee (Indian Institute of Technology Madras) V V R, Sai (Indian Institute of Technology Madras)
7	14:00-14:30	Poster presentation	Analysis of Perovskite-Silicon Tandem Solar Cells Using a Semi-Analytical Model	Ganesh, Kumudini (Indian Institute of Technology Palakkad) Padmanabhan, Revathy (Indian Institute of Technology Palakkad)
8	14:00-14:30	Poster presentation	Organophosphate Pesticides Sensor Using Copper Oxide Nanorods Modified on Screen-Printed Carbon Electrodes	Bulpakdi, Paphontee (Chulalongkorn University, International School of Engineering) Dhanasomboon, Poonyarat (Chulalongkorn University, International School of Engineering) Sungkobol, Sorawit (Chulalongkorn University, International School of Engineering) Thanachayanont, Chanchana (National Metal and Materials Technology Center (MTEC), National) Pungetmongkol, Porpin (Faculty of Engineering)
9	14:00-14:30	Poster presentation	Analog Resistance Switching in Single Tungsten Oxide Nanoparticle Devices	Artmeier, Sabrina (TU München) Hiltz, Jonathan (University of Alberta) Milliken, Sarah (University of Alberta) Veinot, Jonathan (University of Alberta) Tornow, Marc (TU München)
10	14:00-14:30	Poster presentation	Protein-Templated Fluorescent Metal Nanoclusters As Photonic Pressure Sensors for Neuronal Cells	Perry, Karima Jeneh (Army Research Lab) Roberts, Paul (Johns Hopkins University) Agans, Richard (Henry M. Jackson Foundation for the Advancement of Military Medi) Karna, Shashi (US Army Research Laboratory) Gupta, Raj (USAMRMC) Hussain, Saber (Molecular Mechanisms Branch, Human Centered ISR Division, Airman)

#	Subslot	Type of presentation	Title	Authors
11	14:00-14:30	Poster presentation	Modified Co-Doped ZnO Nanostructures on SPCE for Xanthine Detection in Early Food Spoilage	Arampongpun, Ramita (International School of Engineering, Chulalongkorn University) Ounsawatdipong, Panassaya (International school of engineering, Chulalongkorn University) Trakoontiwakorn, Kanchat (Chulalongkorn University) Thanachayanont, Chanchana (National Metal and Materials Technology Center (MTEC), National) Pungetmongkol, Porpin (Faculty of Engineering)
12	14:00-14:30	Poster presentation	Biosynthesized AgNP Modified Glassy Carbon Electrode As a Label-Free Non Faradaic Impedance Sensor for Bacteria Detection	Patel, Rhea (Indian Institute of Technology Bombay (IIT Bombay)) Islam, Md Saiful (Indian Institute of Technology Goa) Pramanick, Bidhan (IIT Goa)
13	14:00-14:30	Poster presentation	10T SRAM Cell As an In-Memory Computing Engine for a Large Range of Boolean Computations	Kumar, Abhash (National Institute of Technology Patna) Singh, Jawar (Indian Institute of Technology Patna) Gupta, Bharat (National Institute of Technology Patna)
14	14:00-14:30	Poster presentation	Majority Logic-based Approximate Recording Adders for High-radix Booth Multipliers	Zhang, Tingting (University of Alberta) Jiang, Honglan (Shanghai Jiao Tong University) Liu, Weiqiang (Nanjing University of Aeronautics and Astronautics) Lombardi, Fabrizio (Northeastern University) Liu, Leibo (Tsinghua University) Han, Jie (University of Alberta)
15	14:00-14:30	Poster presentation	Implementation of IMPLY-Based Memristive Subtractor	Kaushik, Nandit (Indian Institute of Technology Mandi) Bodapati, Srinivasu (IIT Mandi)

#	Subslot	Type of presentation	Title	Authors
1	10:30-10:45	Oral presentation	A Real-Time Target Tracking Method for SEM Images Based on Template Matching	Fang, Liang (Soochow University) Qu, Zhi (Soochow University) Zhang, Lue (Soochow University) Yang, Zhan (Soochow University)
2	10:45-11:00	Oral presentation	Photocatalytic-Based Microswimmers for Microbial Removal and Biofilm Eradication	Villa, Katherine (Institute of Chemical Research of Catalonia (ICIQ))
3	11:00-11:15	Oral presentation	2D-based nano/microrobots: Towards Biomedical and Environmental Applications	Khezri, Bahareh (University of Chemistry and Technology)
4	11:15-11:30	Oral presentation	Environmentally Friendly and Highly Controllable Full-Visible-Spectrum Perovskite Quantum Dots Based on Ion Exchange Resin	Wang, Chenhui (Fuzhou University) Chen, Enguo (Fuzhou University) Ye, Yun (Fuzhou University,) Xu, sheng (Fuzhou University) Guo, tailiang (Fuzhou University)
5	11:30-11:45	Oral presentation	Platform Merging for Nanorobotic Manipulation: Multiple Physical Stimuli and In-Situ Characterization	Zhang, Wenqi (City University of HongKong) Chen, Donglei (City University of HongKong) Hou, Chaojian (City University of Hong Kong) Wang, Kun (City University of Hong Kong) Li, Qingwei (Beijing Institute of Technology) Dong, Lixin (City University of Hong Kong)
6	11:45-12:00	Oral presentation	Phase Change Nanowires As Tunable NEMS	Ali, Utku Emre (University of Oxford) Modi, Gaurav (University of Pennsylvania) Agarwal, Ritesh (University of Pennsylvania) Bhaskaran, Harish (University of Oxford)

Tuesday		Tuesday, July 5, 2022, 10:30-12:50, Aula Magna			
Emerging Methods to Model Nanodevices and Nanostructures: From Theory to Large-scale Computational Modeling					Oral Session
Organizer: Anant Anantram (100344)			University of Washington		
Organizer: Josef Weinbub (110812)			TU Wien		
#	Subslot	Type of presentation	Title	Authors	
1	10:30-10:50	Oral presentation	Wigner Dynamics of Electron Quantum Superposition States in a Confined and Opened Quantum Dot	Ballicchia, Mauro, (TU Wien) Nedjalkov, Mihail (TU Wien) Weinbub, Josef (TU Wien)	
2	10:50-11:10	Oral presentation	Massively Parallel Computer Aided Design of Nanoscale Devices	Luisier, Mathieu (ETH Zurich)	
3	11:10-11:30	Oral presentation	The BITLLES Simulator: On the Advantages of Having Access to the Microscopic Properties of Electrons Inside the Active Region of Quantum Devices	Oriols, Xavier (Universitat Autònoma de Barcelona, Spain)	
4	11:30-11:50	Oral presentation	Victory Atomistic: A Successful Path Toward Atomistic TCAD For Microelectronic Engineers In Nanoscale Devices Prototyping	Blaise, Philippe (Silvaco)	
5	11:50-12:10	Oral presentation	Large-scale Simulation Frameworks for Nanoelectronics	Gunst, Tue (Synopsys)	
6	12:10-12:30	Oral presentation	Nano-Electronic Simulation Software (NESS): An Overview	Dutta, Tapa (University of Glasgow) Georgiev, Vihar (University of Glasgow) Asenov, A (University of Glasgow)	
7	12:30-12:50	Oral presentation	Sensing quantum electromagnetic fields with a single electron	Degiovanni, Pascal (CNRS / ENS Lyon) Souquet-Basiege, Hubert (ENS Lyon) Roussel, Benjamin (Aalto University) Safi, Inès (CNRS / Université Paris Saclay)	

				Bartholomei, Hugo (Université PSL / ENS) Fève, Gwendal (Université PSL / ENS)
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