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# CONMAT2022

2<sup>nd</sup> Global Summit on Condensed Matter Physics

# GSEMSN2022

2<sup>nd</sup> Global Summit and Expo on Materials Science and Nanoscience

October 17-19, 2022

Dubai, UAE

**FINAL PROGRAM**



**The Scientistt**

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# Joint Conference on Material Science and Condensed Matter Physics

## October 17-19, 2022 | Dubai, UAE

08:45-09:00 Registrations

09:00-09:20 Opening Ceremony

Conference Neil Cameron, Monash University, Australia

Chairs: Mukunda P. Das, The Australian National University, Australia

### Day-1| Monday OCTOBER 17, 2022

#### Plenary Session

09:20-10:00 **Title:** Convergence of Disciplines for Materials Science without Borders with Transformative Impact on Global Energy and Healthcare  
**Paras N Prasad**, University at Buffalo, USA **P**

10:00-10:40 **Title:** Porous Polymers as Scaffolds for Tissue Engineering and 3D Cell Culture  
**Neil Cameron**, Monash University, Australia **P**

#### Keynote Session

10:40-11:10 **Title:** Magnesium Alloys as the Third Generation of Human Implants  
**Lucien Petrova Veleva**, Center for Investigation and Advanced Study, Mexico **K**

11:10-11:20 Coffee Break

#### Invited Session

11:20-11:45 **Title:** Integrating Sustainable Practices into Organic Electronics Research  
**Assunta Marrocchi**, University of Perugia, Italy **I**

11:45-12:10 **Title:** A Network Breakdown Model for a Tumor Microenvironment  
**Panos Argyrakis**, University of Thessaloniki, Greece **I**

12:10-12:35 **Title:** Use of Nano-Materials and New Generation Chemicals in Heavy-Oil and Bitumen Recovery to Improve Efficiency and Reduce GHG Emission  
**Tayfun Babadagli**, University of Alberta, Canada **I**

12:35-13:00 **Title:** Point Defects in AlN and GaN for Quantum Information Processing: An ab initio Insight  
**Kamil Czelej**, University of Warsaw, Poland **I**

13:00-13:10 Group Photo

13:10-14:00 Lunch Break

14:00-14:25 **Title:** Development of VO<sub>2</sub>-based Composite Thin Films ; Related Apps  
**Frédéric Dumas-Bouchiat**, University of Limoges, France **I**

14:25-14:50 **Title:** Study of High Power Impulse Magnetron Sputtering (HiPIMS): Application to Cr Deposition Thin Film.  
**Ahmed Rhallabi**, Nantes University, France **I**

14:50-15:15 **Title:** Photophysical Study of new Small Molecules Presenting Thermal Activated Delayed Fluorescence (TADF) and Room Temperature Phosphorescence (RTP) for OLEDs Devices  
**Antonio Maggiore**, National Research Council, Italy **I**

15:15-15:40 **Title:** Laser-assisted Generation of Ultra-small Iron Nanoparticles  
**Rafael Omar Torres Mendieta**, Institute for Nanomaterials, Advanced Technologies and Innovation, Czech Republic **I**

<b>15:40-16:05</b>	<b>Title:</b> Inhibition Impact of Cement Composite Admixtures on Fungi Activity <b>Miriama Hološová</b> , Technical University of Košice, Slovak Republic	
<b>16:05-16:15</b>	<b>Coffee Break</b>	
<b>16:15-16:40</b>	<b>Title:</b> Photoinduced Insulator-to-Metal Transition of Excitonic Insulators <b>Satoshi Ejima</b> , University of Greifswald, Germany	
<b>16:40-17:05</b>	<b>Title:</b> Heterostructural Interface Atomic Structure Prediction from First Principles Methods and Application to CdTe Solar Cells <b>Abhishek Sharan</b> , Khalifa University, UAE	
<b>17:05-17:30</b>	<b>Title:</b> Exotic Magnetic Flux Patterns in Superconductors Between Type I and II <b>Alexei Vagov</b> , Research University HSE, Russia	
<b>17:30-17:55</b>	<b>Title:</b> Novel Ag0(NP)/TiO2 Supported Bentonite Thin Film in the Efficient Degradation of Bisphenol a using Visible Light <b>Diwakar Tiwari</b> , Mizoram University, India	
<b>17:55-18:20</b>	<b>Title:</b> Phase Transitions and Critical Phenomena in Non-Equilibrium Steady States from Holography <b>Masataka Matsumoto</b> , Shanghai University, China	
<b>18:20-18:45</b>	<b>Title:</b> Negative Capacitance MOSFET with a Multiferroic Gate Dielectric <b>Tingting Jia</b> , Chinese Academy of Sciences, China	
<b>18:45-19:10</b>	<b>Title:</b> Hexagonal Warping Induced Non-Linear Hall Effect in Topological Insulator Bi2Te3 <b>Abdullah Yar</b> , Kohat University of Science and Technology, Kohat, Pakistan	
<b>19:10-19:35</b>	<b>Title:</b> Strong Optical Nonlinearity of Multifunctional Hybrid Perovskite Layers <b>Anna Zawadzka</b> , Nicolaus Copernicus University, Poland	
	<b>Poster Session</b>	
<b>P-001</b>	<b>Title:</b> Environmental Impacts of Wooden Panels with Various Thermal Insulations <b>Adriana Eštoková</b> , Technical University of Košice, Slovak Republic	
<b>P-002</b>	<b>Title:</b> Possibilities of Critical Raw Materials Recovery by Extracellular Precipitation <b>Alena Luptáková</b> , Slovak Academic of Science, Slovak Republic	
<b>P-003</b>	<b>Title:</b> Increasing the Recovery Rate of Reservoir Sediments as a waste through their Re-use in Construction Industry <b>Natalia Junakova</b> , Technical University of Košice, Slovak Republic	
<b>P-004</b>	<b>Title:</b> Vanadium Dioxide Thin Films for Thermal Micro-Systems <b>Frédéric Dumas-Bouchiat</b> , University of Limoges, France	
<b>P-005</b>	<b>Title:</b> Structural Studies of NdBaCo2O5.75 <b>Himanshu Pant</b> , Indian Institute of Technology, India	
<b>End of Day-1</b>		
<b>Day-2   Tuesday OCTOBER 18, 2022</b>		
<b>Virtual Presentations   Time zone: Beijing, China (GMT+8)</b>		
<b>10:00-10:40</b>	<b>Title:</b> Graphene Coatings for Remarkable Corrosion Resistance <b>Raman Singh</b> , Monash University, Australia	<b>P</b>

<b>10:40-11:20</b>	<b>Title:</b> High Temperature Superconductivity under High Pressure in Hydrides <b>Mukunda Das</b> , Australian National University, Australia	<b>P</b>
<b>11:20-12:00</b>	<b>Title:</b> Spectroscopic Manifestations of Electron Fractionalization In The Pseudo Gap State of Cuprates <b>Atsushi Fujimori</b> , University of Tokyo, Japan	<b>P</b>
<b>12:00-12:40</b>	<b>Title:</b> Hydrodynamic Effects in Electron Fluids on Spintronics <b>Sadamichi Maekawa</b> , RIKEN Center for Emergent Matter Science, Japan	<b>P</b>
<b>12:40-13:05</b>	<b>Title:</b> Development of Magnetic Tunnel Junctions for Magnetic Sensor Applications <b>Takafumi Nakano</b> , Tohoku University, Japan	<b>I</b>
<b>13:05-13:30</b>	<b>Title:</b> Topological Nature of Dirac Electrons in Organic Conductors <b>Masao Ogata</b> , University of Tokyo, Japan	<b>I</b>
<b>13:30-13:55</b>	<b>Title:</b> Electronic Correlations of CeSb under the Devil's Staircase Transition <b>Kenta Kuroda</b> , Hiroshima University, Japan	<b>I</b>
<b>13:55-14:20</b>	<b>Title:</b> Symmetry-Protected Exceptional Rings in the System Described by the Generalized Eigenvalue Problem <b>Takuma Isobe</b> , University of Tsukuba, Japan	<b>I</b>
<b>14:20-14:45</b>	<b>Title:</b> Universal Critical behavior in Hubbard models with Dirac dispersion: Gross-Neveu-Heisenberg Class <b>Yuichi Otsuka</b> , RIKEN Center for Computational Science, Japan	<b>I</b>
<b>14:45-15:10</b>	<b>Title:</b> Electronic Structures of Ti <sub>2</sub> O <sub>3</sub> Films Revealed by Soft X-Ray Angle-Resolved Photoemission Spectroscopy <b>Kohei Yoshimatsu</b> , Tohoku University, Japan	<b>I</b>
<b>15:10-15:35</b>	<b>Title:</b> Thermoelectricity and Topological Phase Transition as a Route to Enhance Thermoelectric Performance <b>Jong-Soo Rhyee</b> , Kyung Hee University, South Korea	<b>I</b>
<b>15:35-16:00</b>	<b>Title:</b> Ultrafast Spectroscopy of 3D-Topological Insulators by High-Order Harmonics <b>Alexis Chacon</b> , Max Planck Postech, South Korea	<b>I</b>
<b>16:00-16:25</b>	<b>Title:</b> Influence of Substrate Properties on Bonding Mechanism of Coldsprayed Titanium Dioxide Coating <b>Noor Irinah Binti Omar</b> , Universiti Teknikal Malaysia, Malaysia	<b>I</b>
<b>16:25-16:50</b>	<b>Title:</b> X-Ray Circular Dichroism of a Collinear Antiferromagnet with a Structural Chirality <b>Okamoto Jun</b> , National Synchrotron Radiation Research Center, Taiwan	<b>I</b>
<b>16:50-17:15</b>	<b>Title:</b> Nanoresistance Networks Construction Technique in Flexible Sensing Materials <b>Nan Lv</b> , Northeast Electric Power University, China	<b>I</b>
<b>17:15-17:40</b>	<b>Title:</b> Tuning Topological Orders by a Conical Magnetic Field in the Kitaev Model <b>Wei Chen</b> , Nanjing University, China	<b>I</b>
<b>17:40-18:05</b>	<b>Title:</b> <sup>75</sup> As NMR Study of the Antiferromagnetic Kondo Lattice CeNiAsO <b>Yongkang Luo</b> , Huazhong University of Science and Technology, China	<b>I</b>

<b>18:05-18:30</b>	<b>Title:</b> Nanoscale Control of One-Dimensional Confined States <b>Yu Zhang</b> , Beijing Institute of Technology, China	<b>I</b>
<b>Day-3   WENSDAY OCTOBER 19, 2022</b>		
<b>Virtual Presentations   Time zone: Newyork, USA (GMT-4)</b>		
<b>09:30-09:55</b>	<b>Title:</b> Optimization of Mxene Photoelectrodes for Energy Conversion and Storage Purposes <b>Anum Iqbal</b> , American University of Sharjah, UAE	<b>I</b>
<b>09:55-10:20</b>	<b>Title:</b> A New Way to Convert Opaque CVD Diamond into Transparency <b>Guodong (David) Zhan</b> , Saudi Aramco EXPEC Advanced Research Center, Saudi Arabia	<b>I</b>
<b>10:20-10:45</b>	<b>Title:</b> Granular Superconductivity at Room Temperature at the Stacking Faults of Graphite <b>Pablo D Esquinazi</b> , University of Leipzig, Germany	<b>I</b>
<b>10:45-11:10</b>	<b>Title:</b> Metal-Insulator Transition and Robust Thermoelectricity via Strain-Tuned Interplay Between Structural and Electronic Properties in (SrVO <sub>3</sub> ) <sub>1</sub> /(SrTiO <sub>3</sub> ) <sub>1</sub> (001) Superlattices <b>Manish Verma</b> , University of Duisburg-Essen, Germany	<b>I</b>
<b>11:10-11:35</b>	<b>Title:</b> Will be Updated Soon <b>Fabrizio Bobba</b> , University of Salerno, Italy	<b>I</b>
<b>11:35-12:15</b>	<b>Title:</b> Two-Dimensional Material Confined Water <b>Mingdong Dong</b> , Aarhus University, Denmark	<b>P</b>
<b>12:15-12:45</b>	<b>Title:</b> Will be updated soon <b>Anderson S L Gomes</b> , Universidade Federal of Pernambuco, Brazil	<b>K</b>
<b>12:45-13:45</b>	<b>Title:</b> Wave Scattering by many Small Particles and Applications <b>Alexander G Ramm</b> , Kansas State University, USA	<b>P</b>
<b>13:45-14:25</b>	<b>Title:</b> Advances in Complex Functional Materials Through Templating <b>Andreas Stein</b> , University of Minnesota, USA	<b>P</b>
<b>14:25-15:05</b>	<b>Title:</b> Some Challenges in Understanding the Corrosion of Copper <b>Digby D Macdonald</b> , University of California at Berkeley, USA	<b>P</b>
<b>15:05-15:35</b>	<b>Title:</b> Interface Driven Properties of Graphene-based Heterostructures <b>Ravindra Pandey</b> , Michigan Technological University, USA	<b>K</b>
<b>15:35-16:00</b>	<b>Title:</b> Kondo Effect at Nanoscale in Ytterbium Organometallic Molecule Cp* <sub>2</sub> Yb(4,4'-Me <sub>2</sub> -bipy) under High Pressure <b>Farzana Nasreen</b> , Colgate University, USA	<b>I</b>

**End of Conference**





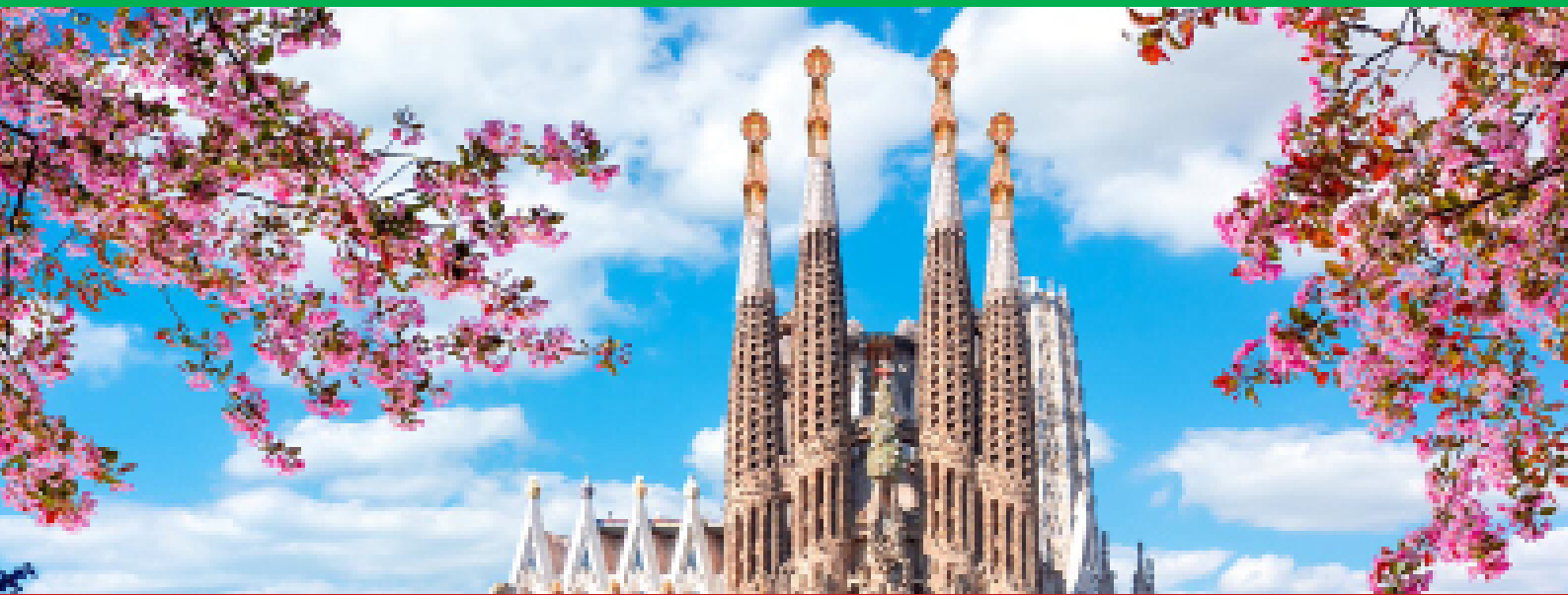


# CONMAT2023

3<sup>rd</sup> Global Summit and Expo on Condensed Matter Physics

**September 18-20, 2023 | Lisbon, Portugal**

<https://www.thescientistt.com/2023/condensed-matter-physics>



# GSEMSN2023

3<sup>rd</sup> Global Summit and Expo on Materials Science and Nanoscience

**October 26-28, 2023 | Barcelona, Spain**

<https://www.thescientistt.com/2023/materials-science-nanoscience>