

## PIM 2025 CONFERENCE PROGRAM

### **Tuesday 16.09.2025**

09:00 – 09:50	Registration
09:50 – 10:00	Conference Opening Ceremony

#### SESSION 1

**Chairman**      **Andras Tompos; Dana Toloman**

10:00 – 10:30 <b>Plenary Pl-5</b>	<b>Niina Dulova</b> <i>When Nano Meets Need: Advanced materials for tackling today's water treatment challenges</i>
10:30 – 11:00 <b>Plenary Pl-2</b>	<b>Sachin Maruti Chavan</b> <i>Metal organic frameworks for critical metal separation</i>
11:00 – 11:30 <b>Plenary Pl-15</b>	<b>Dana Elena Stanescu</b> <i>Intrinsic photoanode band engineering for enhanced solar water splitting efficiency in Ti-doped hematite nanorodes</i>
11:30 – 11:45	<b>Coffee break</b>
11:45 – 12:00 <b>Oral T4-1</b>	<b>Irina Borbáth</b> <i>Differences and similarities in the behavior of Mo- and Sn-containing composite supported Pt electrocatalysts</i>
12:00 – 12:15 <b>Oral T4-8</b>	<b>Cristina Mormile</b> <i>Eco-friendly biochar-metal oxide adsorbents for emerging contaminant removal</i>
12:15 – 12:30 <b>Oral T4-2</b>	<b>Izabell Craciunescu</b> <i>Innovative magnetic nanocluster-coated sawdust for eco-friendly oil cleanup in water systems</i>
13:30 – 12:45 <b>Oral T4-5</b>	<b>Radu Lapusan</b> <i>From Imaging to Therapy: Curcumin-functionalized magnetic nanoparticles for dual MRI/Fluorescence imaging and photodynamic therapy</i>
12:45 – 13:00 <b>Oral T4-10</b>	<b>Raktim Abha Saikia</b> <i>Bowl-inversion of corannulene-hybrid nanographenes</i>
13:30 – 14:30	<b>LUNCH</b>

#### SESSION 2

**Chairman**      **Niina Dulova; Loredana Soran**

14:30 – 15:00 <b>Plenary Pl-9</b>	<b>Mircea Guina</b> <i>Advanced laser technologies as tools for spectroscopy</i>
15:00 – 15:30 <b>Plenary Pl-7</b>	<b>Federico Gabriele</b> <i>The journey of underground argon: A global infrastructure for dark matter research with the DS-20k experiment</i>
15:30 – 15:50 <b>Keynote K-1</b>	<b>Humberto Cabrera</b> <i>Ultrasensitive photothermal characterization of thermoplasmonics nanoparticles for efficient cancer phototherapy</i>

15:50 – 16:05 <b>Oral T4-14</b>	<b>András Tompos</b> <i>Assessment of the role of strong metal-support interaction on electrocatalytic performance of composite supported Pt catalysts</i>
16:05 – 16:20 <b>Oral T4-9</b>	<b>Violeta Niculescu</b> <i>A UV-driven mof strategy to remove harmful pesticide residues from agricultural water</i>
16:20 – 16:35 <b>Oral T3-1</b>	<b>Ammen Udin Ammar</b> <i>Enhancing the supercapacitor performance by using W-doped SnO<sub>2</sub> electrode material</i>
<b>16:35 – 16:50</b>	<b>Coffee break</b>
16:50 – 17:05 <b>Oral T1-4</b>	<b>Zeev Ronen</b> <i>Investigating the biotransformation of TNT by three different bacterial Species using Compound-Specific Isotope Analysis (CSIA)</i>
17:05 – 17:20 <b>Oral T4-11</b>	<b>Petr Snetkov</b> <i>In vitro efficacy of curcumin-loaded polymer films based on hyaluronic acid against melanoma cancer cells</i>
<b>17:20 – 18:30</b>	<b>POSTER SESSION 1</b> <i>Sections T1, T2, T3</i>
<b>18:00 – 20:30</b>	<b>Garden Party - Welcome Cocktail</b>

**Wednesday 17.09.2025****SESSION 3****Chairman Andre Matagne, Alina Magdas**

09:00 – 09:30 <b>Plenary Pl-16</b>	<b>Aura Tintaru</b> <i>States of the art analytical methods for the structural characterization of natural mixtures</i>
09:30 – 10:00 <b>Plenary Pl-4</b>	<b>Marco Ciulu</b> <i>The major challenge of authenticating the origin of honey: portable spectroscopy for the development of a traceability system</i>
10:00 – 10:30 <b>Plenary Pl-10</b>	<b>Roxana Ionete</b> <i>From <sup>13</sup>Clues to <sup>18</sup>Origin, <sup>2</sup>History and <sup>15</sup>N-Profilng — Tracing food authenticity with isotope fingerprints</i>
10:30 – 10:45 <b>Oral T4-13</b>	<b>Daria Stoia</b> <i>Tunable hybrid microcapsules loaded with gold nanoparticles for photothermal therapy</i>
10:45 – 11:00 <b>Oral T1-2</b>	<b>Maria David</b> <i>Spectroscopic approaches for analyzing Spirulina dietary supplements</i>
11:00 – 11:15 <b>Oral T1-1</b>	<b>Silviu Laurentiu Badea</b> <i>Compound specific isotope analysis of chlordecone during its Fenton advanced oxidation in H<sub>2</sub>O<sub>2</sub>/Mn<sub>2</sub>O<sub>3</sub> system</i>
11:15 – 11:30 <b>Oral T1-3</b>	<b>Ariana Hategan</b> <i>Enhancing wine recognition through the fusion of <sup>1</sup>H-NMR and Raman spectral data</i>
<b>11:30 – 11:45</b>	<b>Coffee Break</b>

## SESSION 4

<b>Chairman</b>	<b>Humberto Cabrera; Vasile Rednic</b>
11:45 – 12:15 <b>Plenary Pl-11</b>	<b>Dimitrios Karamanis</b> <i>Transitioning to urban climate neutrality and climate positive cities with the synergy of solar energy technologies and nature-based solutions</i>
12:15 – 12:30 <b>Oral T2-7</b>	<b>Stefan Stan</b> <i>Spectroscopic and photophysical Investigation of 1,3-Diphenylisobenzofuran (DPBF): Experimental and theoretical approaches</i>
12:30 – 12:45 <b>Oral T3-5</b>	<b>Nicoleta Tosa</b> <i>Non-destructive investigation of microfluidic channels in fused silica by optical coherent tomography and microscopy</i>
12:45 – 13:00 <b>Oral T3-2</b>	<b>Gabriela Blanita</b> <i>Cold plasma-assisted oxidation of glycerin</i>
<b>13:00 – 14:30</b>	<b>LUNCH</b>

## SESSION 5

<b>Chairman</b>	<b>Monica Florescu; Cosmin Farcau</b>
14:30 – 15:00 <b>Plenary Pl-13</b>	<b>André Matagne</b> <i>Probing the folding pathway of BS3 <math>\beta</math>-Lactamase with high structural and temporal resolution</i>
15:00 – 15:30 <b>Plenary Pl-3</b>	<b>Andrea Maria Chiariello</b> <i>Computational approaches to study DNA spatial organization in healthy and pathogenic genomes</i>
15:30 – 15:50 <b>Keynote K-2</b>	<b>Liviu Movileanu</b> <i>Bioinspired nanopore sensors using antibody mimetic technologies</i>
15:50 – 16:05 <b>Oral T2-1</b>	<b>Hayriye Yildiz Dasgan</b> <i>Determination of the Optimal Dose of Superabsorbent Hydrogel to Mitigate Drought Stress in Bean (<i>Phaseolus vulgaris</i> L.)</i>
16:05 – 16:20 <b>Oral T2-6</b>	<b>Ioana Grosu</b> <i>Synthesis and Physicochemical Profiling of Polydopamine- and Cellulose-Modified Hyaluronic Acid Hydrogels for Wound Dressing Applications</i>
16:20 – 16:35 <b>Oral T2-3</b>	<b>Alex Adrian Farcas</b> <i>Study of dopamine photochemistry behaviour</i>
<b>16:35 – 16:50</b>	<b>Coffee Break</b>
16:50 – 17:05 <b>Oral T3-4</b>	<b>Pier-Gianni Medaglia</b> <i>Dielectric properties of layered double hydroxides (ldhs) and applications for nano energy generators</i>
17:05 – 17:20 <b>Oral T2-4</b>	<b>Doru Sticlet</b> <i>Nonstabilizerness in many-body quantum systems</i>
<b>17:20 – 18:30</b>	<b>POSTER SESSION 2</b> <b>Section T4, Special Student Section</b>

**Thursday 18.09.2025****SESSION 6****Chairman Sachin Maruti Chavan; Oana Raita**

9:00 – 9:30 <b>Plenary Pl-1</b>	<b>Silvana Andreescu</b> <i>From Lab to Field: Advancements in water contaminant detection using portable sensors</i>
9:30 – 10:00 <b>Plenary Pl-6</b>	<b>Monica Florescu</b> <i>Electrospun Nanofiber Coatings: Enhancing corrosion resistance and enabling advanced biosensing</i>
10:00 – 10:30 <b>Plenary Pl-8</b>	<b>Santiago Gomez-Ruiz</b> <i>Targeted nanostructures for fighting diseases: Strategies against cancer, bacterial infections or ALS</i>
10:30 – 10:45 <b>Oral T2-5</b>	<b>Andrea Fontana</b> <i>Physical principles of protein phase-separation action on DNA folding associated to pathogenic gene activation</i>
10:45 – 11:00 <b>Oral T2-4</b>	<b>Radu Fechete</b> <i>In vivo and in vitro <sup>1</sup>H NMR imaging, relaxometry and spectroscopy at 11.7 T using INSPIRE – Cluj-Napoca infrastructure</i>
11:00 – 11:15 <b>Oral T2-2</b>	<b>Melinda David</b> <i>Spectroscopic and electrochemical approach to characterize the interaction between biologically synthesized nanoparticles and PFAS contaminants</i>
11:15 – 11:30	<b>Coffee Break</b>

**SESSION 7****Chairman Andrea Maria Chiariello; Attila Bende**

11:30 – 12:00 <b>Plenary Pl-12</b>	<b>Piotr Łapka</b> <i>Perspectives on the use of the pressure-retarded osmosis process for efficient energy storage and power generation</i>
12:00 – 12:30 <b>Plenary Pl-14</b>	<b>Piotr Oleskowicz-Popiel</b> <i>Carboxylate platform for waste valorisation</i>
12:30 – 12:45 <b>Oral T3-6</b>	<b>Liviu Zarbo</b> <i>The Romanian quantum communications network</i>
12:45 – 13:00 <b>Oral T3-3</b>	<b>Robert Gutt</b> <i>Visualizing Electromagnetic Fields: A robotic approach to antenna radiation mapping</i>
13:00 – 14:30	<b>LUNCH</b>

**SESSION 8****Chairman Aura Tintaru; Claudiu Filip**

14:30 – 14:45 <b>Oral T4-7</b>	<b>Voichita Mihali</b> <i>Engineering hybrid nanostructures via self-assembly of janus nanoparticles and polymersomes for biomedical applications</i>
-----------------------------------	--

---

14:45 – 15:00 <b>Oral T4-3</b>	<b>Chiara Feoli</b> <i>Novel, biodegradable magnetic nanocomplexes aimed at magnetic resonance imaging</i>
15:00 – 15:15 <b>Oral T4-6</b>	<b>Nicolas Leto</b> <i>Modelling 2D Nanoflake - Bacterium Interactions in Solutions</i>
15:15 – 15:30 <b>Oral T4-4</b>	<b>Radu-George Hategan</b> <i>Structural, magnetic and micromagnetic properties of <math>Dy_{1-x}Gd_xCo_3</math> as a candidate for hosting ferrimagnetic skyrmions</i>
15:30 – 15:45	<b>Closing Ceremony</b>

---

<b>18:30 – 22:00</b>	<b>Gala dinner</b>
----------------------	--------------------

**Friday****19.09.2025****09:00 – 20:00      Social Program: Excursion to the Corvin Castle (lunch included)**