

Programme

INTERNATIONAL MEETING FOR RESEARCHERS IN

MATERIALS

& PLASMA

TECHNOLOGY - IMRMPT

Medellín
Colombia

June 2-4,
2021



Foristom
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Universidad Nacional del Centro de la Provincia de Buenos Aires, Argentina

Invited Speakers / Conferencistas Invitados

- ✓ Dra. Raquel González Arrabal
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Ovidio Yordanis Peña Rodríguez
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Andrés Díaz Lantada
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dra. Enrique Chacon Tanarro
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Guillermo Fernández Zapico
TriboBlend, Madrid, Spain
- ✓ Dr. Francisco de Paula Montero Chacón
Universidad Loyola Andalucía, Sevilla
- ✓ Dr. Elkin Martínez Díaz
KAMAX S.L.U., Valencia
- ✓ Dr. Juan Muñoz Saldaña
Laboratorio Nacional de Proyección, México
- ✓ Dr. Mariana Pereyra Perez
Universidad de la República, Montevideo, Uruguay
- ✓ Dr. Ana Corbacho
Universidad de la República, Montevideo, Uruguay
- ✓ Dr. Claudinei de Souza Guimaraes
Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
- ✓ Dra. Linda Elcida Gil Lozada
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Puerto Ordaz, Venezuela

CONFERENCE VENUE



CONFERENCE ROOM / AUDITORIO

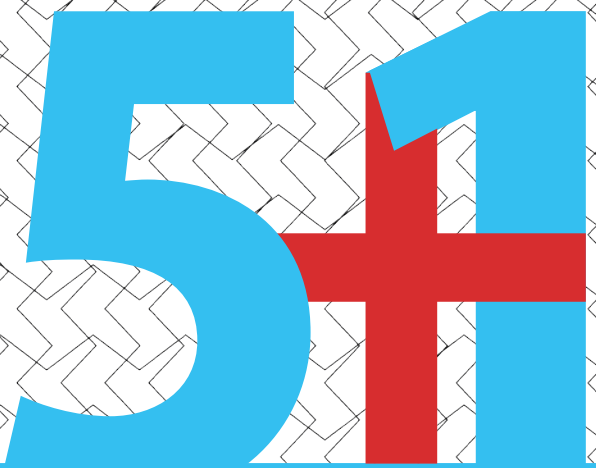
Wednesday, 02 June 2021	Earth room
	Earth room
Thursday, 03 June 2021	Air room
	Water room
	Fire room
Friday, 04 June 2021	Earth room
	Air room
	Water room
	Fire room

PROGRAM / PROGRAMA

5+1 IMRMPT

Topics

- New Materials
- Structural Integrity
- Renewable Energy
- Biomedical Coatings
- Additive Manufacturing
- Non Destructive Evaluation
- Characterization of Materials
- Thin Films and Nanomaterials
- Surface Hardening Processes
- Wear and Corrosion/Oxidation
- Modeling, Simulation and Diagnostics
- Plasma Applications and Technologies
- Education on Science, Engineering and Technology
- Surface Modification (Ion Implantation, Ion Nitriding, Magnetron Sputtering, Cathodic Arc, Sol-Gel, Thermal Spray)
- Science, Engineering, Technology and Innovation for Social Inclusion



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TECHNOLOGY - IMRMP

FIRST DAY / PRIMER DÍA

2 June 2021 / 2 de junio de 2021

DAY DÍA	WEDNESDAY MORNING / MIÉRCOLES MAÑANA	
HOUR HORA		
7:00 – 8:00	Registration and Coffee	
8:00 – 8:20	Opening Ceremony: 5+1 International Meeting for Researchers in Materials & Plasma Technology (5+1 IMRMPT) Conference Room / Auditorio: Earth room	
8:20 – 8:40	Oral Presentation ID 65: Optical diagnosis of the temperature of multi-charged titanium ions in an electric arc discharge Speaker / Ponente: Fredy Fabián Parada Becerra Conference Room / Auditorio: Earth room	
8:40 – 9:10	Plenary Lecture I: Enhancement of the mechanical properties of carbon polymer nanocomposites through the simultaneous application of ultrahigh shear rates and very high pressures Keynote Speaker / Ponente Magistral: Guillermo Fernández Zapico Conference Room / Auditorio: Earth room	
9:10 – 9:40	Plenary Lecture II: Artificial intelligence aided design of metamaterials and metasurfaces Keynote Speaker / Ponente Magistral: Andrés Díaz Lantada Conference Room / Auditorio: Earth room	
9:40 – 10:00	Coffee Break / Café	
10:00 – 10:30	Plenary Lecture III: Development of anticorrosion coatings to work under liquid metal environments Keynote Speaker / Ponente Magistral: Raquel González Arrabal Conference Room / Auditorio: Earth room	
10:30 – 11:00	Plenary Lecture IV: Using laser irradiation to produce hollow nanoparticles Keynote Speaker / Ponente Magistral: Ovidio Yordanis Peña Rodríguez Conference Room / Auditorio: Earth room	
11:00 – 11:30	Plenary Lecture V: Lattice model frameworks for solving multiscale, multiphysical problems in materials science Keynote Speaker / Ponente Magistral: Francisco de Paula Montero Chacón Conference Room / Auditorio: Earth room	
11:30 – 12:00	Plenary Lecture VI: New test methodologies to analyze lubricated surfaces of machines Keynote Speaker / Ponente Magistral: Enrique Chacon Tanarro Conference Room / Auditorio: Earth room	
12:00 – 14:00	Lunch Break / Almuerzo	

DAY DÍA	WEDNESDAY AFTERNOON / MIÉRCOLES TARDE	
HOUR HORA		
14:00 – 14:30	Plenary Lecture VII: Processing of metal matrix composite materials using laser beam fusion additive manufacturing technology Keynote Speaker / Ponente Magistral: Elkin Martínez Díaz Conference Room / Auditorio: Earth room	
14:30 – 15:00	Plenary Lecture VIII: Yttria-stabilized zirconia thermal barrier coatings deposited by atmospheric plasma spraying at CENAPROT: process analysis and infiltration behavior against volcanic ashes Keynote Speaker / Ponente Magistral: Juan Muñoz Saldaña Conference Room / Auditorio: Earth room	
15:00 – 15:30	Plenary Lecture IX: Nanotechnology in nature and biomimicry: a science teaching approach from integral and interdisciplinary practices for students of STEM degrees Keynote Speaker / Ponente Magistral: Mariana Pereyra Perez Conference Room / Auditorio: Earth room	
15:30 – 16:00	Plenary Lecture X: Interdisciplinary higher education: teacher pedagogical development experiences Keynote Speaker / Ponente Magistral: Ana Corbacho Conference Room / Auditorio: Earth room	
16:00 – 16:20	Coffee Break / Café	
16:20 – 16:50	Plenary Lecture XI: Perspective and future in the production of renewable energies in Latin America and the Caribbean and the importance of Brazil in the development of technologies applied in the production of biogas Keynote Speaker / Ponente Magistral: Claudinei de Souza Guimaraes Conference Room / Auditorio: Earth room	
16:50 – 17:20	Plenary Lecture XII: Anodized nanostructured titanium surfaces: present and future Keynote Speaker / Ponente Magistral: Linda Elcida Gil Lozada Conference Room / Auditorio: Earth room	
17:20 – 17:40	Oral Presentation ID 159: Computer tool to improve the learning process in the dynamics course Speaker / Ponente: Diego Villegas Conference Room / Auditorio: Earth room	
17:40 – 18:00	Oral Presentation ID 73: Effect of travel speed in arc welding processes using the finite element method Speaker / Ponente: Oscar Rodolfo Bohorquez Becerra Conference Room / Auditorio: Earth room	
18:00 – 18:20	Oral Presentation ID 05: Influence of magnetron sputtering deposition parameters on the manufacture of hard coatings Speaker / Ponente: Arley Garcia Conference Room / Auditorio: Earth room	



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