

Second Announcement

19th INTERNATIONAL CONFERENCE ON PLASMA PHYSICS AND APPLICATIONS

&

1st Workshop on Plasma Applications for Smart and Sustainable Agriculture under COST Action CA 19110 – PIAgri

19th CPPA 2021

August 31 – September 3, Magurele, Bucharest, ROMANIA



Important dates

August 1, 2021	Reduced Registration Fee
August 10, 2021	Second Announcement
August 17, 2021	Late abstracts acceptance (for poster only)
August 24, 2021	Final programme
August 31-September 3	Conference

General information

The 19th edition of the International Conference on Plasma Physics and Applications (CPPA2021) focuses on the recent advances in plasma fundamentals and applications, covering a wide variety of topics, including gas discharge physics, plasma sources, plasma diagnostics, material engineering, energy, fusion technology, health, environment and space. The conference, traditionally organized by the Romanian plasma community, will offer excellent conditions for discussion, exchange ideas and establishing contacts. PhD students and young researchers are welcomed.

On this edition we are also jointly organizing the 1st Workshop on Plasma Applications for Smart and Sustainable Agriculture, under COST Action CA 19110 - PIAgri.

The conference will be held in Magurele Campus of Physics, located about 12 km from the center of Bucharest, reachable by public transportation, namely in the Conference Hall of National Institute of Physics and Nuclear Engineering - IFIN HH. The conference format includes both *in-person* and *online* participations.

Conference webpage: <http://cppa2021.inflpr.ro>

Associated Events

- 1st Workshop on Plasma Applications for Smart and Sustainable Agriculture, under COST Action CA 19110 - PIAgri.
- Visits of the laboratories of National Institute for Lasers, Plasma and Radiation Physics.

Organizers

- National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania (NILPRP)
- “Alexandru Ioan Cuza” University of Iasi, Romania
- Romanian Physical Society

Conference Chairs

G. Dinescu, Bucharest, Romania

L. Sirghi, Iasi, Romania

Honorary Chair

G. Popa, Iasi, Romania

International Scientific Committee

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|-------------------------------------|--|
| F. Arefi - Khonsari, Paris, France | H. Kersten, Kiel, Germany |
| T. Belmonte, Nancy, France | A. Lacoste, Grenoble, France |
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| V. Colombo, Bologna, Italy | T. Minea, Orsay, France |
| M. Echim, Brussels, Belgium | M.C.M. van de Sanden, Eindhoven, The Netherlands |
| P. Favia, Bari, Italy | E. Stamate, Roskilde, Denmark |
| C. Focsa, C. Focsa, Lille, France | M. Vlad, Bucharest, Romania |
| C. Grisolia, Cadarache, France | |

Local Organizing Committee

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| T. Acsente, NILPRP, Bucharest | M. Osiac, University of Craiova, Craiova |
| M. Bazavan, University of Bucharest, Bucharest | C. Porosnicu, NILPRP, Bucharest |
| G. Borgia, “Alexandru Ioan Cuza” University, Iasi | V. Satulu, NILPRP, Bucharest |
| C. Costin, “Alexandru Ioan Cuza” University, Iasi | I. Topala, “Alexandru Ioan Cuza” University, Iasi |
| T. Craciunescu, NILPRP, Bucharest | C. Vitelaru, NILPRP, Bucharest |
| I. Mihaila, “Alexandru Ioan Cuza” University, Iasi | S. Vizireanu, NILPRP, Bucharest |
| B. Mitu, NILPRP, Bucharest | G. Voitcu, NILPRP, Bucharest |
| M. Nistor, NILPRP, Bucharest | M. Zamfirescu, NILPRP, Bucharest |

Scientific Secretariat

C. Costin, Iasi

S.D. Stoica, Bucharest

Please contact us at: cppa2021@inflpr.ro

Conference topics

- T1. Processes in plasmas, modelling and simulation. Space plasmas
- T2. Gas discharge physics, plasma sources and diagnostics, dusty and laser plasmas
- T3. Plasma material processing and fusion technology
- T4. Plasma applications in environment, biology, medicine and agriculture

Invited speakers

-  **C. Costin**, Alexandru Ioan Cuza University, Iasi, Romania
Efficiency of the secondary electron emission in magnetized discharges
-  **T. Craciunescu**, National Institute for Laser, Plasma and Radiation Physics, Magurele-Bucharest, Romania
Romanian participation in EUROfusion research
-  **K. Kutasi**, Wigner Research Centre for Physics, Academy of Sciences, Budapest, Hungary
Characteristics of surface-wave microwave discharges and their application possibilities
-  **M. Magureanu**, National Institute for Laser, Plasma and Radiation Physics, Magurele-Bucharest, Romania
Plasma degradation of antibiotic contaminants in water
-  **M. Mozetic**, Stefan Josef Institute, Ljubljana, Slovenia
Plasma Technologies in Industry 4.0: Opportunities for Plasma Scientists
-  **Anton Nikiforov**, Ghent University, Ghent (BE)
Nitrogen fixation by pulsed electrical discharges: from backgrounds to application
-  **F. Peeters**, DIFFER - Dutch Institute for Fundamental Energy Research, Eindhoven, The Netherlands
Preheating and quenching in CO₂ microwave plasma reactors
-  **G.D. Stancu**, CentraleSupélec, Laboratoire EM2C – CNRS, Gif-Sur-Yvette, France
Advanced diagnostics, thermal coupling and fundamental studies of atmospheric pressure discharges
-  **A. Zille**, University of Minho, 2C2T Centre, Guimarães, Portugal
Atmospheric Plasma Immobilization of Antimicrobial Zeolite Loaded Silver Nanoparticles on Medical Textiles

Programme

The Conference will combine *plenary* sessions with invited and oral presentations and *poster* sessions. *Young scientist* prizes will be awarded.

The preliminary programme is available at the Conference site. The final Conference programme will be distributed together with the Final Announcement on August 24th, 2021.

Registration

Registration can be done by filling in the **Registration form** available on the conference website (<https://cppa2021.inflpr.ro/registration.html>). You will receive a confirmation of your registration by electronic e-mail.

Registration Fees for participations are as follows:

	Early registration (before August 1)		Late registration (after August 1)		Online participation	
	EUR	RON	EUR	RON	EUR	RON
Regular	200	980	250	1225	100	490
Student*	100	490	120	585	0	0

*Students have to give evidence for their University affiliation.

The registration fee includes coffee breaks, conference program and Book of Abstracts, as well as social events. In a few days after receiving your registration form, a corresponding invoice will be sent to you. In special cases, the registration fee can also be paid at the Registration Desk in cash (both EUR and RON are accepted).

Bank details for payment:

Account holder: National Institute for Lasers, Plasma and Radiation Physics

Address: Atomistilor str. 409, Magurele, Ilfov, Romania

CUI/VAT Number: 9052135

Bank: BCR S.A., Branch Office Unirea

Bank address: Unirii Boulevard, 43-45, Bucharest, Romania

IBAN: RO69RNCB0082044172650002 (EUR)

IBAN: RO96RNCB0082044172650001 (RON)

SWIFT: RNCBROBU

Please, mention on the payment orders the full name(s) of the registered participant(s). All the banking costs must be paid by the participants. The bank charges paid by the conference organizers will be asked for reimbursement at the conference venue.

Cancellation and refund

Participants who have paid the registration fee but cancel their participation will be charged with a cancellation fee of 30 €/150 RON if they inform the Conference Secretariat before 20th of August; no refund is possible after that date. Nevertheless, the registered persons encountering such a situation will receive all the conference documents.

Accommodation

The Local Organizing Committee recommends to book your stay at the following hotels:

Hotel name and address	Telephone, e-mail and website
Europa Royale Bucharest, 4* 60 Franceza Str., Bucharest	+40 21 3191798 SM.Bucharest@EuropaRoyale.com http://www.europaroyalebucharest.com/
Bucharest Comfort Suites, 4* 16 Nicolae Balcescu Blv., Bucharest	+4 021 3102885 office@comfort-suites.ro http://www.comfort-suites.ro/EN/hotel.html
IBIS Palatul Parlamentului City Centre, 3* 82-84 Izvor Str., Bucharest	+40 21 4011011 H5938-RE@accor.com http://www.ibishotels.ro/
Magurele Hotel, 3* 250A Atomistilor Str., Magurele	+40 21 4575269 rezervari@hotelmagurele.ro http://hotelmagurele.ro/?lang=2

Transportation to the city and conference site

a) *from Henri Coanda airport to the Conference site in Magurele*

- First, you can take the direct train from the airport to Bucharest North Railway station (20-25 minutes journey). The itinerary (Aeroport Henri Coanda – Bucuresti Nord) and tickets are available on:

<https://bilete.cfrcalatori.ro/en-GB/Itineraries>.

- Second, from North Railway Station you have to take the 781 Express Bus to Magurele and step down to “Atomistilor 45” station. From here you will reach by foot (5-7 min walk) the conference site.

b) from Henri Coanda airport to the city center (Piata Unirii)

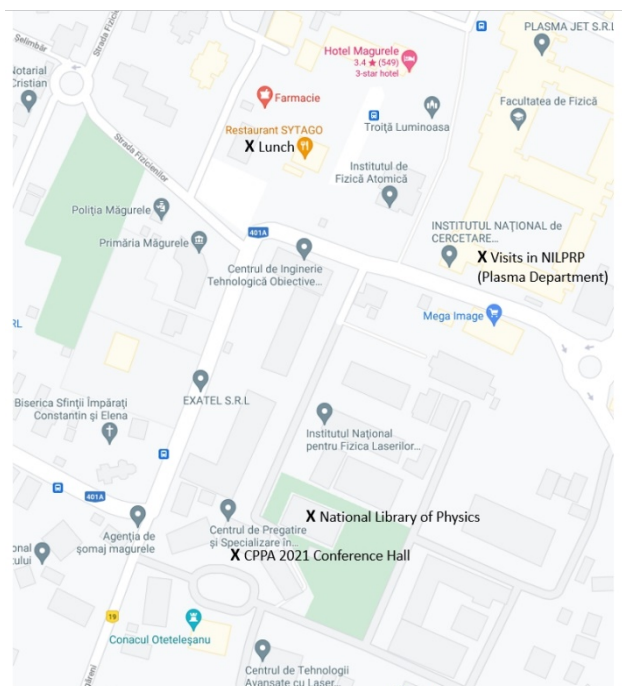
There are regular buses from airport to Piata Unirii. Step down from the arrival hall (level 1) to ground floor (level 0). At level 0 go outside the hall and you are just in the bus station. The bus number is 783.

b) from City center (Piata Unirii) to the Conference site in Magurele

Take the tramway 32 from the Piata Unirii and step down to the station “Antiaeriana” (approx. 20 min). Go the station “Soseaua Magurele” and take on of the following buses R426/ R427/ R428/ R464 bus to “Facultatea de Fizica” station. From here you will reach by foot (2 min walk) the conference site.

Note: tickets for public transportation (tram, trolley, regular bus) should be purchased in advance from dedicated counters (STB should be written on them)!

The location of the buildings of interest for the Conference are presented below:



More details will be found on the conference website and in the Final Announcement.

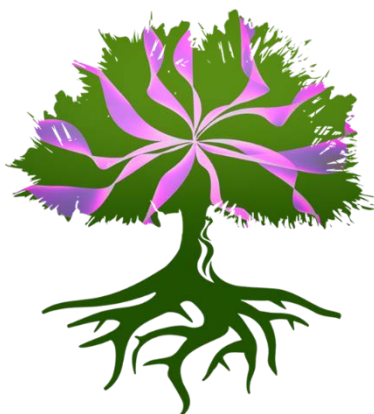
Social Programme

Bucharest is the capital of Romania, a town with an old history and interesting monuments. There are many possibilities for spending your free time in the old city, visiting museums, etc.

- The Welcome reception will be organized on Tuesday, 31st of August in the afternoon, in Magurele, at Sytago restaurant.
- The Wednesday afternoon, 1st of August is devoted to an excursion in/around Bucharest.
- The conference dinner will take place on Thursday evening, in a location which will be communicated in due time.

Passport and visa

Citizens having passports from certain countries may need a visa to enter Romania (please check on <http://www.mae.ro/en>). If you need assistance to obtain visa, please contact the Scientific Secretariat (cppa2021@inflpr.ro) in order to send you an official invitation letter.



CA19110


European Cooperation in
Science and Technology

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2 - 3 September 2021
Magurele, Bucharest, ROMANIA

Workshop webpage:
<https://cppa2021.inflpr.ro/workshop.html>

General information

The 1st Workshop on Plasma Applications for Smart and Sustainable Agriculture under COST Action CA19110 – PIAgri is marking the first year of Action implementation. As such, it intends to establish the adequate frame for scientists, both from inside and outside COST network, to present the state-of-the-art in the field of plasma agriculture. A series of invited speakers, as well as oral presenters will be revealing different aspects of plasma applications for the treatment of seeds, plants, and soils, for the improvement of wastewater, manure, and food, and for the production of plasma -activated water. The participants will be acquainted to the opportunities for developing plasma processes and technologies in various fields related to agriculture.

Organizers

- National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania (NILPRP)
- European Cooperation in Science and Technology – COST

Workshop Chair

B. Mitu, Romania

International Scientific Committee

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|--|--|
|  W. Gernjak, Girona (ES) |  A. Nikiforov, Gent, (BE) |
|  M. Gherardi, Bologna, (IT) |  J. Lublin (PL) |
|  F. Krčma, Brno (CZ) |  M. Măgureanu, Bucharest (RO) |
|  K. Kutasi, Budapest, (HU) |  G. Primc, Ljubljana (SI) |
|  N. Puać, Belgrade (RS) | |

Local Organizing Committee









F. Bîlea, Bucharest	L. G. Carpen, Bucharest
C. Bradu, Bucharest	M. Gîdea, Bucharest
C. Chireceanu, Bucharest	I. Topală, Iasi

Scientific Secretariat - S.D. Stoica, Bucharest

Workshop topics

- Low-temperature plasma treatment of seeds;
- Low-temperature plasma treatment of plants and soils;
- Plasma treatment of agricultural wastewater, growth media, manure and production of plasma activated water (PAW);
- Applications of plasma processes and technologies in food industry.

Invited speakers

-  **Assunta Bertaccini**, Università di Bologna, Italy
Plasma activated water as disease resistance inducer in plants
-  **Paula Bourke**, University College Dublin, Ireland
From Bench to Prototype for Fresh Produce Processing with Non-thermal Plasma
-  **Henrike Brust**, Leibniz Institute for Plasma Science and Technology, Greifswald, Germany
Plasma Treatment of Growing Plants – Effects on Plant growth, Development and Stress Responses
-  **Thierry Dufour**, Sorbonne Université, CNRS, Ecole Polytechnique, Paris, France
Dry atmospheric plasma priming: a sustainable approach to improve seeds germinative parameters
-  **Zdenko Machala**, Comenius University in Bratislava, Slovakia
Reactive oxygen and nitrogen species in plasma activated water: tuning their concentrations and functions in plant growth promotion
-  **Ester Marotta**, University of Padova, Italy
Plasma-based water treatment in agricultural applications
-  **Vida Mildažienė**, Vytautas Magnus University, Lithuania
The molecular mechanisms involved in plant response to stress induced by seed exposure to cold plasma
-  **Oliver Schlüter**, Leibniz Institute for Agricultural Engineering and Bioeconomy, Potsdam, Germany
Cold atmospheric pressure plasma applications along the entire food production chain: examples and perspectives

Registration fees

	Before August 1	After August 1	Online
Regular fee	120 €	150 €	0 €
Student fee**	80 €	100 €	

* Students have to give evidence for their University affiliation.