

PERSONAL INFORMATION



Valentina MĂRĂSCU

📍 National Institute for Laser, Plasma And Radiation Physics (INFLPR), Low Temperature Plasma Laboratory– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Magurele, ROMANIA

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🆔 <https://orcid.org/0000-0002-5170-1398> | [P I-6457-2016](#)

🔍 <https://scholar.google.com/citations?user=lsJzsb0AAAAJ&hl=ro&oi=ao>

🌐 www.linkedin.com/in/valentina-marascu-ph-d-35197b223

📄 <https://www.researchgate.net/profile/Valentina-Marascu>

🗺 <https://www.brainmap.ro/valentina-marascu>

Sex: F | Nationality: Romanian | H-Index: 6

WORK EXPERIENCE

Present
- October 2021



Mentor for Junior Faculty and Scientists (*volunteer*)

The Michigan Institute for Plasma Science and Engineering (MIPSE)– 2236 EECS Bldg., 1301 Beal Avenue, Ann Arbor, Michigan 48109-2122, USA.

<https://mipse.umich.edu/index.php>

- provide advice and discuss their experiences in proposal development, teaching, work-life balance, service and other areas.

Academic/ Research sector

Present
- July 2021



Research Assistant

National Institute for Laser, Plasma And Radiation Physics (INFLPR), Low Temperature Plasma Laboratory– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Magurele, ROMANIA.

<http://www.inflpr.ro>

- W particles production by using atmospheric pressure plasma jet;
- Studies/ experiments of RF(13.56 MHz) plasma-W surface interactions;
- Numerical computation/ statistical analysis of particles;
- Materials characterization, deposited by various plasma and laser techniques, via AFM, FTIR, Profilometry, Contact Angle and Optical Microscopy.
- Scientific data dissemination.

Research sector

**July 2021 -
January 2020**



PostDoc Fellowship

Commissariat à l'énergie atomique et aux énergies alternatives (CEA), Paris-Saclay Center, DRF/ JOLIOT/ SCBM/ Tritium Labeling Laboratory, 91191 Gif-sur-Yvette Cedex, FRANCE.

<http://www.cea.fr/>

- Experiments concerning studies of Tritium loading in different materials (dusts and bulk materials) via gas phase.
- Room/ High temperature desorption analyses of tritiated materials;
- Studies/ experiments of MW(2.45 GHz) Plasma - Material interaction;
- Numerical computation/ statistical analysis of material structures;
- Materials characterization via LSC and LVEM-TEM/ SEM techniques;
- Scientific data dissemination.

Research sector

**January 2020-
July 2014**



Research Assistant

National Institute for Laser, Plasma And Radiation Physics (INFLPR), Low Temperature Plasma Laboratory– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Magurele, ROMANIA.

<http://www.inflpr.ro>

- W particles production by using atmospheric pressure plasma jet;
- Studies/ experiments of RF(13.56 MHz) plasma-W surface interactions;
- Numerical computation/ statistical analysis of particles;
- Materials characterization, deposited by various plasma and laser techniques, via AFM, FTIR, Profilometry, Contact Angle and Optical Microscopy.
- Scientific data dissemination.

Research sector

**September 2017
- January 2016**



Research Assistant

Polymers, Mesophases And Unconventional Methods For Environment Protection Research Center/ Faculty Of Physics, University Of Bucharest- 405 Atomistilor Street, Po- Box Mg- 11, 077125 Magurele, ROMANIA.

<http://fizica.unibuc.ro/>

- Polymer-like thin films and nanomaterials deposition by various plasma techniques;
- High resolution optical emission spectroscopy measurements;
- Materials characterization, via AFM, FTIR, Profilometry, Contact Angle, Optical Microscopy.
- Numerical computation and statistical analysis of nanostructures.
- Scientific data dissemination.

Research sector

**July 2014 -
January 2014**

Trainee Research Assistant

National Institute for Laser, Plasma And Radiation Physics (INFLPR), Low Temperature Plasma Laboratory– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Magurele, ROMANIA.

<http://www.inflpr.ro>



- Metallic particles synthesis via RF(13.56 MHz)atmospheric pressure plasma;
- Numerical computation and statistical analysis of nanostructures;
- Materials characterization, deposited by various plasma and laser techniques, via AFM, FTIR and Optical Microscopy.
- Scientific data dissemination.

Research sector

**December 2013 -
March 2012**

Technician 3rd degree

National Institute for Laser, Plasma And Radiation Physics (INFLPR), Low Temperature Plasma Laboratory– 409 Atomistilor Street, Po- Box Mg- 36, 077125 Magurele, ROMANIA.



<http://www.inflpr.ro>

- Measurements and interpretation of FTIR spectra of various materials deposited by plasma and laser techniques;
- Scientific data dissemination.

Research sector

**EDUCATION
AND
TRAINING**

**May 2019 -
October 2015**

Ph.D. degree in Exact Sciences (Physics domain);

ISCED 8

- score: *Excellent (Summa cum Laudae)*

Faculty of Physics, University of Bucharest, 405 Atomistilor Street, Po- Box Mg- 11, 077125 Magurele, ROMANIA.

<http://www.fizica.unibuc.ro>

- Specialization: Optics, Spectroscopy, Plasma and Lasers
- Doctoral School of Physics, University of Bucharest, Romania.
- Thesis title: “*Study of tungsten dust formation in plasma for research in fusion technology*”.



**June 2015 -
October 2013**

M.Sc. in Physics

ISCED 7

Faculty of Physics, University of Bucharest, 405 Atomistilor Street, Po- Box Mg- 11, 077125 Magurele, ROMANIA.

<http://www.fizica.unibuc.ro>

- Specialization: Optics, Lasers and Applications
- Thesis title: “*Particles production for controlled fusion research by plasma methods*”.



**February
2013
- October 2009**

B.Sc. in Mathematics

ISCED 6

Faculty of Mathematics and Computer Science, University of Bucharest, 14 Academiei Street, Sector 1, 010014, Bucharest, ROMANIA.

<http://www.fmi.unibuc.ro>

- Specialization: Mathematics and Computer Science
- Thesis title: “*Fourier Transform in infrared spectroscopy*”.



PERSONAL SKILLS

Mother tongue(s)

ROMANIAN

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
ENGLISH	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user
	C1				
FRENCH	Independent user	Independent user	Independent user	Independent user	Independent user
	B2				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user.
[Common European Framework of Reference for Languages](#)

Job-related skills

- Nano-, micro- materials and thin film depositions at low / atmospheric pressure plasma;
- Analyzes via high resolution optical emission spectroscopy (OES);
- Statistical analysis of nano- and micro- materials from SEM images with ImageJ/ Matlab;
- Materials characterization and interpretation via Thermo desorption, LSC, FTIR, Optical Microscopy, AFM, LVEM-TEM/ SEM, Profilometry and Contact Angle.

Membership

- Romanian Physical Society (**RPS**)- *since: 2013*;
- European Physical Society (**EPS**)- *since: 2013*;
- American Physical Society (**APS**)- *since: 2019*;
- IEEE Advancing Technology for Humanity (**IEEE**)- *since: 2019*;
- IEEE Nuclear and Plasma Sciences Society (**IEEE NPSS**)- *since: 2019*;
- American Nuclear Society (**ANS**)- *since: 2020*;
- IEEE Quantum- *since: 2021*.

Topic Editor

- ❖ COATINGS Journal (ISSN 2079-6412), MDPI (Basel, Switzerland); (**IF = 2.881; AIS = 0.406**); (*years: 2020 - 2022*)

Guest Editor

- ❖ Special Issue *Advances in Fundamental and Applied Fusion Research domain*; COATINGS Journal (ISSN 2079-6412), MDPI (Basel, Switzerland); https://www.mdpi.com/journal/coatings/special_issues/fusion_research (**IF = 2.881; AIS = 0.406**).

Supervisor/ Mentor

- ❖ Junior peer-review training @ Web of Science Academy- *since: 2021*.

Reviewer Board

- ❖ COATINGS Journal (ISSN 2079-6412), MDPI (Basel, Switzerland); (**IF = 2.881; AIS = 0.406**).

Reviewer

1. **NUCLEAR FUSION** Journal-IAEA (Online ISSN: 1741-4326), IOP;
WOS/ IF = 3.179; AIS = 0.859.
2. **PHYSICA SCRIPTA** Journal (Online ISSN: 1402-4896), IOP;
WOS/ IF = 2.487; AIS = 0.520.
3. **JOURNAL OF PHYSICS B: ATOMIC, MOLECULAR and OPTICAL PHYSICS** (Online ISSN 1361-6455), IOP;
WOS/ IF = 1.917; AIS = 0.593.
4. **SENSORS** (ISSN 1424-8220), MDPI (Basel, Switzerland);
WOS/ IF = 3.576; AIS = 0.585.
5. **ANTIOXIDANTS** (ISSN 2076-3921), MDPI (Basel, Switzerland);
WOS/ IF = 6.312; AIS = 0.910.
6. **MATERIALS** Journal (ISSN 1996-1944), MDPI (Basel, Switzerland);
WOS/ IF = 3.623; AIS = 0.597.
7. **MOLECULES** Journal (ISSN 1420-3049), MDPI (Basel, Switzerland);
WOS/ IF = 4.411; AIS = 0.694.
8. **MICROMACHINES** Journal (ISSN 2072-666X), MDPI (Basel, Switzerland);
WOS/ IF = 2.891; AIS = 0.527.
9. **APPLIED SCIENCES** Journal (ISSN 2076-3417), MDPI (Basel, Switzerland);
WOS/ IF = 2.679; AIS = 0.409.
10. **COATINGS** Journal (ISSN 2079-6412), MDPI (Basel, Switzerland);
WOS/ IF = 2.881; AIS = 0.406.
11. **MINERALS** Journal (ISSN 2075-163X), MDPI (Basel, Switzerland);
WOS/ IF = 2.644; AIS = 0.494.
12. **PLASMA** Journal (ISSN 2571-6182), MDPI (Basel, Switzerland).
WOS/ IF = N/A; AIS = N/A.
13. **IoT- Open Access Journal of Internet of Things** (ISSN 2624-831X), MDPI (Basel, Switzerland).
WOS/ IF = N/A; AIS = N/A.
14. **REVIEW OF SCIENTIFIC INSTRUMENTS** Journal, (ISSN 0034-6748), AIP- Publisher
WOS/ IF = 1.523; AIS = 0.489.

Education

- ♣ **Experimental physics laboratories/ internship/ training** with undergraduated/ graduated students.

Chair member

- ♣ **Chair** at “Morning Sessions”, *Virtual Plasma Hack Week*, 28th June – 2nd July, 2021, United States of America.
- ♣ **Chair** at **Tritium Side Session** from the *Virtual FuseNet PhD Event*, The European Fusion Education Network, November 23rd 2020.

Jury member

- **International Jury Member (@ oral sessions)** at *Virtual American Nuclear Society Student Conference 2021*, April 10th, 2021, Nord Carolina State University, United States of America.
- **National Jury Member** at *14th Edition Informatics Project Competition (INFOMATRIX)*, Lumina- The University of South-East Europe, 8th April 2016 Bucharest, Romania.

Organizing Team Member

- ✓ **Member in the Organizing Committee** of the online event *Plasma Hack Week*, 28th June – 2nd July, 2021, United States of America.
- ✓ **Member of the INFLPR organizing team:** the *European Researcher’s Night Project* in 2018, 2015, 2014 and 2013, Bucharest, Romania.
- ✓ **Member of the INFLPR organizing team:** 19th, 17th and 16th *International Conference On Plasma Physics And Applications*, in 2021, 2017 and 2013, Magurele city, Ilfov county, Romania.

Volunteer Team Member

- ♣ **Volunteer Help Desk @ APS DPP Job Faire from: Virtual 62nd Annual Meeting of the American Physical Society, Division of Plasma Physics**, between November 10th – 12th, **2020**, Memphis, Tennessee, United States of America.
- ♣ **Volunteered as Proctor @ IEEE Xtreme 14.0 Programming Competition**, 24th October, **2020**, Romania Section.

Exhibitor (research sector)

- ❖ **Exhibitor from INFLPR** at the *Sci+Fi Fest Project* in **2016**, Bucharest, Romania.
- ❖ **Exhibitor from INFLPR** at *Bucharest International Technical Fair – TIB*, 14-17 October **2015**, Romexpo, Bucharest, Romania.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Romanian Ministry of Education, Research and Innovation Certificate of Professional Competence- Knowledge of computer operating, 14 august 2009

- OriginLab, ImageJ, MatLab, HTML/CSS/ Javascript, SolidWorks, etc.

Date
November 2021

Valentina MARASCU