



Europass Curriculum Vitae

Personal info

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Nationality Romanian

Professional experience

Period	2009 - present
Occupation or function held	Associate professor
Main activities and responsibilities	Education and Research
Name and address of the employer	Alexandru Ioan Cuza University of Iași, 11 Carol I Blvd., RO-700506, Iași, România
Activity domain	Higher education
Period	2005 - 2008
Occupation or function held	Research associate
Main activities and responsibilities	Research and Education: <ul style="list-style-type: none">- Fundamental research in radiofrequency plasmas with space applications;- RF plasma sterilization of medical materials;- Design, construction and optimization of a new type of microwave device for medical and domestic waste management.- Teaching a Plasma Science class;- Supervision of experimental work of some students preparing their diploma/ master theses.
Name and address of the employer	Department of Electric and Electronic Engineering, Faculty of Science, University of Saga, Japan
Activity domain	Research and Higher Education
Period	2002 - 2009
Occupation or function held	Lecturer
Main activities and responsibilities	Education and Research
Name and address of the employer	Alexandru Ioan Cuza University of Iași, 11 Carol I Blvd., RO-700506, Iași, România
Activity domain	Higher education
Period	2001 - 2002
Occupation or function held	Associate Lecturer
Main activities and responsibilities	Education and Research
Name and address of the employer	Alexandru Ioan Cuza University of Iași, 11 Carol I Blvd., RO-700506, Iași, România
Activity domain	Higher education

Education and Training

Period	March 05 – 08, 2019
Title of qualification	Diploma for completing the training session in academic management (Professionalization Centre of University Management)
Main themes/occupational abilities	<ul style="list-style-type: none">- Improving the capacity of the management system in education (good governance, leadership, university management, strategic planning, monitoring and evaluation of policies, programs)- Developing the skills of higher education managers;- Increasing the capacity for counseling and career guidance.
Name of type of the organization providing education and training	Ministry of National Education, Romanian Academy
Period	October - November, 2003
Title of qualification	Diploma for completing the Autumn School of Plasma Physics “Long-Lived Structures and Self Organization in Plasmas”
Main themes/occupational abilities	<ul style="list-style-type: none">- Nonlinear and self-organization processes in astrophysics- Physics of the Sun and the solar atmosphere- Nonlinear dynamics of space plasmas: formation of self-organized structures in the magnetosphere- Laser-induced plasma instabilities- Variational principles in plasmas in which self-organized structures appear- Alfvén wave dynamics- Thermodynamics of self-organization processes- Solitary structures in relativistic plasmas- The wave-particle interaction in electromagnetic turbulence- Self-organizing processes in the L-H transition in fusion plasmas (Tokamak)
Name of type of the organization providing education and training	“Abdus Salam” International Centre for Theoretical Physics, Miramare, Trieste, Italy
Period	October – November, 2003
Title of qualification	Certificate for completing the Minicourse of Turbulence (course - prof. dr. Daniel Gomez, University of Buenos Aires, Argentina + laboratory work – assist. dr. Pablo Mininni, University of Buenos Aires, Argentina)
Main themes/occupational abilities	<ul style="list-style-type: none">- Hydrodynamic Turbulence- MHD Turbulence- Emergence of self-organized structures in fluids and magnetofluids- Evolution equations and variational principles for studying turbulence- Numerical models for studying turbulence in fluids and magnetofluids
Name of type of the organization providing education and training	“Abdus Salam” International Centre for Theoretical Physics, Miramare, Trieste, Italy
Period	April, 2002
Title of qualification	Research mobility - CEEPUS (Central European Exchange Programme for University Studies)
Main themes/occupational abilities	Study of nonlinear and self-organization process in double plasma machine
Name of type of the organization providing education and training	Laboratory of Plasma Physics, Institute for Ion Physics, “Leopold Franzens” University of Innsbruck, Austria
Period	July, 2001
Title of qualification	Research mobility - CEEPUS (Central European Exchange Programme for University Studies)
Main themes/occupational abilities	Study of nonlinear and self-organization process in double plasma machine
Name of type of the organization providing education and training	Laboratory of Plasma Physics, Institute for Ion Physics, “Leopold Franzens” University of Innsbruck, Austria

Period	1997 - 2001
Title of qualification	PhD in Physics, with distinction SUMMA CUM LAUDE
Main themes/occupational abilities	Self-organized Structures in Plasma Systems
Name of type of the organization providing education and training	Laboratory of Self- organization, Faculty of Physics, “Alexandru Ioan Cuza” University of Iași, Romania
Period	1996 - 1997
Title of qualification	Magister in Physics
Main themes/occupational abilities	Nonlinearity and Self-organization in Complex Systems
Name of type of the organization providing education and training	Faculty of Physics, “Alexandru Ioan Cuza” University of Iași, Romania
Period	1991 - 1996
Title of qualification	Bachelor in Physics
Main themes/occupational abilities	Theoretical Physics
Name of type of the organization providing education and training	Faculty of Physics, “Alexandru Ioan Cuza” University of Iași, Romania

Personal abilities and competencies

Native language **Romanian**

Other languages

Self-assessment

European level ()*

English

French

Understanding				Speaking				Writing	
Listening		Reading		Interaction		Speaking			
C2	Experienced User	C2	Experienced User	C2	Experienced User	C2	Experienced User	C2	Experienced User
C1	Experienced User	C1	Experienced User	B1	Independent user	B1	Independent user	B2	Independent user

(*) [Common European Framework of Reference for Languages](#)

There are three main levels, as follows:

- Base level user (levels A1 and A2);
- Independent user (levels B1 and B2);
- Experienced user (levels C1 and C2).

Level 1 (A, B, C) is lower than level 2 (A, B, C)

Professional abilities and competences

Organizational abilities and competences

- Expert-evaluator (INTAS, Belgium)
- Scientific Referee (Physics of Plasmas, European Journal of Physics D, JARP)
- Editor at Journal of Advanced Research in Physics (JARP), Revista Stiintifica „Adamachi”
- Dean of the Faculty of Physics, Alexandru Ioan Cuza University of Iași, Romania (2012 – 2020)
- Vice-dean of the Faculty of Physics, Alexandru Ioan Cuza University of Iași, Romania (2009 – 2012)
- Director of the Department of Physics, Alexandru Ioan Cuza University of Iași, Romania (2010 – 2012)
- Member of the Senate, Alexandru Ioan Cuza University of Iași, Romania (2010 – 2012, 2016 - present)
- Member of Administration Council, Alexandru Ioan Cuza University of Iași, Romania (2012 - 2020)
- Member of the Council of the Faculty of Physics, Alexandru Ioan Cuza University of Iași, Romania (2001-2005, 2009 – present)

Academic activities

- Member of the Organizing Committee of 9th International Conference on Physics of Advanced Materials (ICPAM), Iași, Romania, September 20-23, 2012; ICPAM-10 (September 22-28, 2014, Iași, Romania); ICPAM-11 (September 8-14, 2016, Cluj-Napoca, Romania)
- Member of the Scientific Committee of TIM12 – TIM19 International Physics Conference, Timișoara, Romania, November 27 – 30, 2012 – May 29 – 31, 2019

○ Courses:

- 2016 – present: Physics of Nonlinear Phenomena (master, 2nd year)
- 2010 – 2011: Physics of Atoms and Molecules (bachelor, 2nd year)
- 2008 – 2009: Solving Physics Problems (bachelor, 1st year)
- 2007 – present: Mathematical Models in Sciences (bachelor, 3rd year)
- 2004 – 2005, 2008 – 2013: Biomechanics (master, 1st year)
- 2003 – 2005, 2008: Introduction too Physics of Self-organized Systems (bachelor, 4th year)
- 2002 – 2005, 2011 – present: Classical Mechanics (bachelor, 1st year)
- 2002 – 2003, 2020 – present: Oscillations and Waves (bachelor, 1st year)
- 2001 – 2005, 2008 – 2015: Topical problems in Physics of Self-organized Systems (master, 2nd year)

○ Seminars:

- 2016 – present: Physics of Nonlinear Phenomena (master, 2nd year)
- 2010 – 2011: Physics of Atoms and Molecules (bachelor, 2nd year)
- 2008 – 2009: Solving Physics Problems (bachelor, 1st year)
- 2007 – 2014, 2020 - present: Mathematical Models in Sciences (bachelor, 3rd year)
- 2003 – 2005, 2008: Introduction too Physics of Self-organized Systems (bachelor, 4th year)
- 2001 – 2005, 2008 – 2015: Topical problems in Physics of Self-organized Systems (master, 2nd year)
- 1996 – 2005, 2008 – 2009, 2011 – 2012, 2015 – present: Classical Mechanics (bachelor, 1st year)
- 1996 – 2005, 2019 – present: Oscillations and Waves (bachelor, 1st year)

○ Laboratories:

- 2004 – 2005, 2008 – 2010: Biomechanics (master, 1st year)
- 1996 – 2005, 2008 – 2009: Classical Mechanics (bachelor, 1st year)
- 1996 – 2005: Oscillations and Waves (bachelor, 1st year)

Scientific Research Activity

- a) areas of expertise: Complexity Science (Nonlinear Dynamics, Self-organization and Chaos), Plasma Physics, Waste Management, Mathematical Models in Sciences.
- b) Author and co-author of 16 papers in ISI – indexed international journals, 4 in journals of the Romanian Academy, 5 books published in Romania and 3 chapters published abroad, 19 papers in non – ISI journals, 73 contributions at international and national conferences (of which 9 invited lectures and 13 oral communications).
- c) Director of a national research grant, member in the teams of 2 international grants and 13 national grants.
- d) 187 ISI citations, H-index = 7

Additional information

- Member in:
 - Romanian Physical Society (vice-president of Iași branch, 2014 - 2018)
 - European Physical Society
 - American Physical Society (until 2018)

- National Board of Romanian Physics Olympiad (2010 – present, vice-president 2012 – 2014; president 2015 - present)
- National Committee (Physics) for curriculum in secondary schools
- the working group for Physics of the European project of CALOHEE consortium, entitled **Measuring and Comparing Achievements of Learning Outcomes in Higher Education in Europe**. The project is relevant for training Physics teachers (<https://www.calohee.eu/>)
- the working group (Physics) for elaborating the national curriculum (*Restructuring the national curriculum for high-schools*, 2013)
- working group for updating the syllabus of International Physics Olympiad (as the leader off the Romanian team) – Astana, Kazakhstan, 2014
- the consultative group for approving the Physics syllabus for the middle-schools (2017)
- the consultative group for approving the syllabus for the exams for awarding the didactic degree II and the colloquium of admission to the didactic degree I (2016)
- CNEE working group for specific activities related to national assessments / exams / competitions, in Physics (2016 - present)
- commission of experts that participated in the formulation of observations, conclusions and recommendations on the report on initial teacher training in Romania (2016).
- the referee group for analysis and approval of national textbooks for Physics of the Didactic and Pedagogic Publishing House, Bucharest (grade 7, 2019; grade 8, 2020).

March 01, 2022