

PERSONAL INFORMATION

Dan-Gheorghe DIMITRIU



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Sex Male | Date of birth 10/01/1972 | Nationality Romanian

WORK EXPERIENCE

- 2008-present **Associate Professor**
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Education and research
 - Business or sector** Higher Education
- 2003-2008 **Lecturer**
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Education and research
 - Business or sector** Higher Education
- 2002-2003 **Associate Lecturer**
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Education and research
 - Business or sector** Higher Education

EDUCATION AND TRAINING

- 2020 **Habilitation** 8
 Ministry of Education and Research, OM 6287/22.12.2020

 - Physics
- 2013 **Project manager** 8
 S. C. Expert Aktiv Group S. R. L., Onesti, Romania

 - Project management, risk management
- 1998-2002 **Master of Science in "Nonlinearity and Self-organization in Complex Systems"** 7
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Physics of complex systems, self-organization, chaos
- 1996-2002 **PhD in Physics, with the distinction "Magna cum Laude"** 8
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Plasma physics
- 1995-1996 **Master of Science in "Plasma Physics and Spectroscopy"** 7
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

 - Plasma physics, spectroscopy
- 1990-1995 **Bachelor in Technical Physics** 6
 "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd, 700506, Iasi, Romania, www.uaic.ro

- Physics

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B2	B2	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills ▪ good communication skills gained through my experience as teacher working with students, as well as through communication of scientific studies to national and international conferences

Research domains

- Nonlinear phenomena in low-temperature plasma
 - self-organized structures in plasma
 - plasma instabilities
 - chaotic phenomena in plasma
 - collective interactions in plasma
 - plasma sources
- Partial ordered structures in liquids
 - solvatochromism
 - intermolecular interactions in liquids
 - molecular spectroscopy
 - liquid models
 - solvent empirical scales

Organisational / managerial skills

- research grant management (1 coordinated, as director, 2 international (bilateral Romania-Austria) research grants and 6 national research grants);
- scientific conferences organization (I was member of the Organizing Committee of 3 national conferences and member of the Scientific Committee of other 3 national conferences);
- member of the Senate of “Alexandru Ioan Cuza” University of Iasi, member of the Ethics Committee of “Alexandru Ioan Cuza” University of Iasi, member of the Council of the Faculty of Physics, “Alexandru Ioan Cuza” University of Iasi, member of the Council of Physics Department, Faculty of Physics, “Alexandru Ioan Cuza” University of Iasi.

Job-related skills

- elaboration of new university courses and laboratory works for students;
- elaboration of documents for validation/re-validation of new licence and master programs;
- evaluation of PhD thesis as official referee or member of the support commission.

Computer skills

- advanced user of computers (Microsoft Office, CorelDraw, Adobe Acrobat, LaTeX, Origin, specialized scientific software)

Driving licence

- B

ADDITIONAL INFORMATION

Publications Annex A - List of the main publications

Projects (as director) Annex B - List of the research grants as coordinator

Conferences participation *TIM 20-21 Physics Conference*, Timisoara, Romania, 2021; *XXVth „Galyna Puchkovska” International School-Seminar „Spectroscopy of Molecules and Crystals” (ISSSMC)*, Kyiv, Ukraine, 2021; *13th Chaotic Modeling and Simulation International Conference (CHAOS 2020)*, Florence, Italy (2020); *34th International Conference on Phenomena in Ionized Gases (ICPIG)*, Sapporo, Japan (2019); *2nd Conference of the EPS Statistical and Nonlinear Physics Division “Statistical Physics of Complex Systems”*, Stockholm, Sweden (2019); *18th International Conference on Plasma Physics and Applications*, Iasi, Romania (2019); *Conference on Complex Systems (CCS)*, Thessaloniki, Greece (2018); *11th Chaotic Modeling and Simulation International Conference (CHAOS 2018)*, Rome, Italy (2018); *1st International Conference on Symmetry*, Barcelona, Spain (2017); *6th Chaotic Modeling and Simulation International Conference (CHAOS 2013)*, Istanbul, Turkey (2013); *Physics Conference TIM-12 and TIM-13*, Timisoara, Romania (2012, 2013); *5th Chaotic Modeling and Simulation International Conference (CHAOS 2012)*, Athens, Greece (2012); *9th International Conference on Physics of Advanced Materials*, Iasi, Romania (2012); *9th International Conference on Environmental Legislation, Safety Engineering and Disaster Management*, Cluj-Napoca, Romania (2012); *5th International Workshop on Optoelectronic Techniques for Environmental Monitoring*, Bucharest-Magurele, Romania (2011); *International Balkan Workshop on Applied Physics*, Constanta, Romania (2003, 2004, 2005, 2006, 2008, 2010); *15th International Conference on Plasma Physics and Applications*, Iasi, Romania (2010); *11th Experimental Chaos and Complexity Conference*, Lille, France (2010); *4th International Workshop on Optoelectronic Techniques for Environmental Monitoring*, Cluj-Napoca, Romania (2010); *International Workshop „50 Years Plasma Physics in Innsbruck”*, Innsbruck, Austria (2009); *19th Europhysics Conference on Atomic and Molecular Physics of Ionized Gases*, Granada, Spain (2008); *17th International Conference on Gas Discharge and Their Applications*, Cardiff, UK (2008); *Solvay Workshop “A Tribute to Professor Radu Balescu” – The Physics of Charged Particles: Radu Balescu’s Life Passion*, Brussels, Belgium (2008); *35th IEEE International Conference on Plasma Science*, Karlsruhe, Germany (2008); *International Conference “Chaos, Complexity and Transport: Theory and Applications”*, Marseille, France (2007); *34th EPS Conference on Plasma Physics*, Warsaw, Poland (2007); *PLASMA 2007 International Conference on Research and Applications of Plasmas*, Greifswald, Germany (2007); *International Conference on Fundamental and Applied Research in Physics*, Iasi, Romania (2007); *16th Symposium on Applications of Plasma Processes*, Podbanske, Slovakia (2007); *2nd International Symposium on Unconventional Plasmas*, Eindhoven, Netherlands (2006); *9th International Symposium on Ball Lightning*, Eindhoven, Netherlands (2006); *5th EUROMECH Nonlinear Dynamics Conference*, Eindhoven, Netherlands (2005); *13th Conference on Plasma Physics and Applications*, Iasi, Romania (2005); *Workshop on Theoretical Plasma Physics*, “Abdus Salam” International Centre for Theoretical Physics, Trieste, Italy (2004); *21st Symposium on Plasma Physics and Technology*, Prague, Czech Republic (2004); *12th Conference on Plasma Physics and Applications*, Iasi, Romania (2003); *16th European Conference on Atomic and Molecular Physics of Ionized Gases*, Grenoble, France (2002); *29th EPS Conference on Plasma Physics and Controlled Fusion*, Montreux, Switzerland (2002); *2nd Conference on Isotopic and Molecular Processes*, Cluj-Napoca, Romania (2001); *11th Conference on Plasma Physics and Applications*, Constanta, Romania (2001); *10th Conference on Plasma Physics and Applications*, Iasi, Romania (1998);

Research stages, summer schools

- Invited Professor at the University of Innsbruck, Austria (2015), in the frame of ERASMUS Programme, teaching the course “Nonlinear Potential Structures in Plasma”;
- Research stages at the University of Innsbruck, Austria, Institute of Ion Physics and Applied Physics (2017, 2014, 2013, 2012, 2010, 2009, 2007, 2006, 2005, 2004, 2002, 2001, 2000, 1999) in the frame of different research grants or international programmes (SOCRATES, ERASMUS, CEEPUS);
- Invited Professor by the University of Innsbruck, Austria (2011), teaching the course “Chaos and Self-organization in Plasma”;
- Research stages at the University of Sciences and Technologies Lille 2, France (2010, 2009, 2008);
- Research stages at the Polytechnic University of Madrid, Spain, Plasma Physics Laboratory (2009, 2006);
- Workshop and School “Physics and Chemistry of the Atmospheres: From Laboratory Experiments to Field Campaigns”, Constanta, Romania (2008);
- Invited Professor at the University of Innsbruck, Austria (2006), in the frame of ERASMUS Programme, teaching the courses “Labcourse in Plasma Diagnosis”, “Complex Space Charge Structures in Plasma” and “Nonlinear Dynamics Techniques for Time Series Analysis”;
- Workshop and School “Physics and Chemistry of the Atmospheres: From Laboratory Experiments to Field Campaigns”, Iasi, Romania (2006);

- International Workshop and School “Towards Fusion Energy – Plasma Physics, Diagnostics, Spin-offs”, Kudowa Zdroj, Poland (2005);
- Autumn College on Plasma Physics, “Abdus Salam” International Centre for Theoretical Physics, Trieste, Italy (2005);
- International Workshop and School “Towards Fusion Energy – Plasma Physics, Diagnostics, Applications”, Kudowa Zdroj, Poland (2004);
- Autumn College on Plasma Physics “Long-Lived Structures and Self Organization in Plasma”, “Abdus Salam” International Centre for Theoretical Physics, Trieste, Italy (2003);
- Summer School on Plasma Physics and Applications, Iasi, Romania (2003);
- Romanian-French Summer School on Plasma Physics and Applications, Iasi, Romania (1995);
- Research stage at the University Paris-Sud XI, Orsay, France (2005), in the frame of TEMPUS Programme

Peer review Scientific Reports, Physics of Plasmas, Plasma Sources Science and Technology, Plasma Physics and Controlled Fusion, Optics Express, New Journal of Physics, Europhysics Letters, Nonlinear Dynamics, Physics Letters A, Physica Scripta, Chaos Solitons & Fractals, Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy, Journal of Molecular Structure, Entropy, Vacuum, Physica A: Statistical Mechanics and Its Applications, Applied Sciences, IEEE Transactions on Plasma Science, IEEE Access, Polymer Engineering & Science, Measurement Science and Technology, Meteorology and Atmospheric Physics, Photochem

Memberships European Physical Society (from 2002), Romanian Physical Society (from 2002), American Physical Society (from 2007), IEEE Nuclear and Plasma Science Society (from 2007), Complex Systems Society (former European Complex Systems Society) (from 2007), The New York Academy of Sciences (from 2011)

Annex A

List of the main scientific publications

A. Books and chapters

1. M. Agop, A. Zala, D. Dimitriu, S. Irimiciuc, A. Gavrilut, C. M. Rusu, G. Crumpei, L. Eva – Statistical Methods and Nonlinear Dynamics for Analyzing Brain Activity. Theoretical and Experimental Aspects, in *13th Chaotic modeling and Simulation International Conference*, Eds. C. H. Skiadas, Y. Dimotikalis, Springer Nature Switzerland AG, Cham, 2021, ISBN 978-3-030-70794-1;
2. D. G. Dimitriu, M. Agop – Analysis of Low-Frequency Instabilities in Low-Temperature Magnetized Plasma, Chapter 5 in *Fractional Dynamics, Anomalous Transport and Plasma Science*, Ed. C. H. Skiadas, Springer Nature Switzerland AG, Cham, 2018, ISBN 978-3-030-04482-4;
3. S. Irimiciuc, D. G. Dimitriu, M. Agop – Theoretical Modeling of the Interaction Between Two Complex Space Charge Structures in Low-Temperature Plasma, Chapter 6 in *Fractional Dynamics, Anomalous Transport and Plasma Science*, Ed. C. H. Skiadas, Springer Nature Switzerland AG, Cham, 2018, ISBN 978-3-030-04482-4;
4. D. O. Dorohoi, D. G. Dimitriu – Spectral Insights on Intermolecular Interactions in Solutions of Some Zwitterionic Compounds, Chapter 3 in *Electromagnetic Radiation in Analysis and Design of Organic Materials – Electronic and Biotechnology*, eds. D. O. Dorohoi, A. I. Barzic and M. Aflori, CRC Press, Taylor & Francis Group, 2017, ISBN 978-1-4987-7580-9, CAT# K29698;
5. D. G. Dimitriu, M. Agop – Chaos in Plasma Physics, Chapter 19 in *Handbook of Applications in Chaos Theory*, eds. C. H. Skiadas and C. Skiadas, CRC Press, Taylor & Francis Group, 2016, ISBN 978-1-4665-9043-4, CAT# K20464;
6. D. G. Dimitriu, S. Chiriac – Intermittency scenario of transition to chaos in plasma in connection with the nonlinear dynamics of a double layer structure, in *Chaos, Complexity and Transport – Theory and Applications*, eds. C. Chandre, X. Leoncini and G. Zaslavsky, World Scientific, 2008, ISBN 978-981-281-879-9;
7. D. G. Dimitriu – Nuclear magnetic resonance in medicine and biology – course notes (in Romanian), PIM Publishing House, Iasi, 2008, ISBN 9789737168860;
8. G. Strat, M. Strat, S. Gurlui, C. Focsa, D. G. Dimitriu – Self-organization phenomena in polymer and plasma structures, in *Self-organization in nanomaterials*, eds. P. Boolchand and G. Lucovsky, INOE Publishing House, Bucuresti, 2008, ISBN 9789738810907;
9. M. Aflori, D. G. Dimitriu – Time series analysis using nonlinear dynamics methods (in Romanian), in *Physics for the students of doctoral schools, vol. I*, eds. L. Dumitrascu, I. Dumitrascu, D. O. Dorohoi, D. G. Dimitriu, G. Apreotesei and M. Aflori, Tehnopress Publishing House, Iasi, 2006, ISBN 9789737023896;
10. D. G. Dimitriu – Electrostatic instabilities in the Q machine plasma (in Romanian), Demiurg Publishing House, Iasi, 2006, ISBN 9737603273;

11. S. Gurlui, D. G. Dimitriu – Double layers in plasma (in Romanian), Tehnopress Publishing House, Iasi, 2005, ISBN 973702155X;

B. Articles indexed in ISI Web of Science

1. C. Popovici, C. M. Pavel, V. Sunel, C. Cheptea, D. G. Dimitriu, D. O. Dorohoi, D. David, V. Closca, M. Popa – Optimized synthesis of new thiosemicarbazide derivatives with tuberculostatic activity, *International Journal of Molecular Sciences* **22** (2021) 12139;
2. D. O. Dorohoi, D. G. Dimitriu, A. C. Morosanu, N. Puica-Melniciuc, I. Hurjui, M. Miron, G. G. Mariciuc, V. Closca, C. Cheptea – Some aryl-1,2,4-triazol-1-ium phenacylids in binary hydroxyl solvent mixtures. Computational and spectral study, *Symmetry* **13** (2021) 1656;
3. D. O. Dorohoi, D. G. Dimitriu, M. M. Dulcescu-Oprea, A. C. Morosanu, N. Puica-Melniciuc, E. Ardelean, A. Gritco-Todirascu, C. Cheptea – Solvatochromic study of two carbanion monosubstituted 4-tolyl-1,2,4-triazol-1-ium phenacylids in binary hydroxylsolvent mixtures, *Molecules* **26** (2021) 3910;
4. C. T. Konrad-Soare, F. Enescu, D. G. Dimitriu, M. Dobromir, E. G. Teodorescu-Soare, F. Mazzanti, S. A. Irimiciuc, C. Ionita, R. Schrittwieser – Concentric double hollow grid cathode discharges. Spectral investigation and phenomenological approach, *Plasma Sources Science and Technology* **30** (2021) 085006;
5. S. A. Irimiciuc, A. Zala, D. Dimitriu, L. M. Himiniuc, M. Agop, B. F. Toma, L. G. Gavril, D. Vasincu, L. Eva – Novel approach for EEG signal analysis in a multifractal paradigm of motions. Epileptic and eclamptic seizures as scale transitions, *Symmetry* **13** (2021) 1024;
6. A. Zala, D. Dimitriu, M. Agop, D. N. Tesloianu, M. L. Cobzeanu, B. M. Cobzeanu, M. C. Rusu, V. Ghizdovat – Evaluating atrial fibrillation through strange attractors, *General Physiology and Biophysics* **40** (2021) 377-386;
7. C. Cheptea, V. Sunel, A. C. Morosanu, D. G. Dimitriu, M. M. Dulcescu-Oprea, M. D. Angheluta, M. Miron, C. D. Nechifor, D. O. Dorohoi, R. N. Malancus – Optimized synthesis of new N-mustards based on 2-mercaptobenzoxazole derivatives with antitumor activity, *Biomedicines* **9** (5) (2021) 476;
8. M. Agop, S. Irimiciuc, D. Dimitriu, C. M. Rusu, A. Zala, L. Dobreci, A. V. Cotirlet, T. C. Petrescu, V. Ghizdovat, L. Eva, D. Vasincu – Novel approach for EKG signals analysis based on Markovian and non-Markovian fractalization type in scale relativity theory, *Symmetry* **13** (2021) 456;
9. M. M. Dulcescu-Oprea, A. C. Morosanu, D. G. Dimitriu, A. Gritco-Todirascu, D. O. Dorohoi, C. Cheptea – Solvatochromic study of pyridinium-acetyl-benzoyl methylid (PABM) in ternary protic solutions, *Journal of Molecular Structure* **1227** (2021) 129539;
10. D. O. Dorohoi, D. E. Creanga, D. G. Dimitriu, A. C. Morosanu, A. Gritco-Todirascu, G. G. Mariciuc, N. Puica Melniciuc, E. Ardelean, C. Cheptea – Computational and spectral means for characterizing intermolecular interactions in solutions and for estimating excited state dipole moment of solute, *Symmetry* **12** (2020) 1299;
11. D. Babusca, A. C. Morosanu, D. G. Dimitriu, D. O. Dorohoi, C. Cheptea – Spectroscopic and quantum-chemical study of molecular interactions of iso-quinolinium ylids in polar solutions, *Molecular Crystals and Liquid Crystals* **698** (2020) 87-97;
12. M. Postolache, L. M. Ivan, N. Puica-Melniciuc, G. G. Mariciuc, D. G. Dimitriu, D. O. Dorohoi – Birefringence of binary liquid crystalline mixtures of MBBA and PMAECOBBA in TCM, interferometric assessment, *Molecular Crystals and Liquid Crystals* **698** (2020) 78-86;
13. L. M. Ivan, D. G. Dimitriu, A. Gritco-Todirascu, A. C. Morosanu, D. O. Dorohoi, C. Cheptea – Excited state dipole moment of two pyridinium-p-nitro-phenacylids estimated from solvatochromic study, *Spectroscopy Letters* **53** (1) (2020) 1-11;
14. A. C. Luca, A. C. Morosanu, I. Macovei, D. G. Dimitriu, D. O. Dorohoi, I. S. Stratulat – Variational method for estimating the dipole moment in the second excited state of fluorescein molecule from its electronic UV absorption spectra, *Revista de Chimie* **70** (10) (2019) 3538-3544;
15. I. S. Stratulat, A. Scripa (Tudose), A. I. Barzic, D. G. Dimitriu, D. O. Dorohoi, A. C. Luca – Dispersion of nicotine circular birefringence, *Revista de Chimie* **70** (9) (2019) 3281-3283;
16. C. T. Teodorescu-Soare, S. A. Irimiciuc, C. Ionita, D. G. Dimitriu, B. Hodoroaba, T. O'Hara, O. Vasiloviciu, L. Amarandi, R. W. Schrittwieser – Concentric double hollow grid cathode discharges, *International Journal of Mass Spectrometry* **436** (2019) 83-90;
17. A. C. Morosanu, D. G. Dimitriu, D. O. Dorohoi – Excited state dipole moment of the fluorescein molecule estimated from electronic absorption spectra, *Journal of Molecular Structure* **1180** (2019) 723-732;
18. D. Babusca, A. C. Morosanu, A. C. Benchea, D. G. Dimitriu, D. O. Dorohoi – Spectral and quantum mechanical study of some azo-derivatives, *Journal of Molecular Liquids* **269** (2018) 940-946;
19. D. A. M. Androne, D. O. Dorohoi, D. G. Dimitriu, H. U. Kasper – Optical and chemical study of quartz from granitic pegmatites, *Revista de Chimie* **69** (2018) 1846-1850;
20. V. B. Rusyn, L. Pribylova, D. G. Dimitriu – Control of the modified chaotic Chua's circuit using threshold method, *Visnik NTTU KPI Seriya – Radiotekhnika Radioaparobuduvannia (Bulletin of National Technical University of Ukraine "Kyiv Polytechnic Institute" Seria Radiotechnique. Radioapparatus Building)* **75** (2018) 61-65;
21. A. C. Benchea, D. Babusca, A. C. Morosanu, D. G. Dimitriu, D. O. Dorohoi – Spectral study of Rhodamine dyes in binary solutions, *Journal of Molecular Structure* **1140** (2017) 71-76;
22. A. E. Scripa (Tudose), D. G. Dimitriu, D. O. Dorohoi – Linear birefringence of polymer foils determined by optical means, *Journal of Molecular Structure* **1140** (2017) 67-70;
23. A. C. Morosanu, A. C. Benchea, D. Babusca, D. G. Dimitriu, D. O. Dorohoi – Quantum mechanical and solvatochromic characterization of quercetin, *Analytical Letters* **50** (2017) 2725-2739;
24. A. C. Benchea, D. Babusca, C. Podlipnik, D. G. Dimitriu – Solvatochromic and quantum-mechanical characterization of Methyl Red, *Analytical Letters* **50** (2017) 2711-2724;
25. D. Babusca, A. C. Benchea, D. G. Dimitriu, D. O. Dorohoi – Spectral and quantum mechanical characterization of 3-(2-Benzothiazolyl)-7-(Diethylamino) Coumarin (Coumarin 6) in binary solutions, *Analytical Letters* **50** (2017) 2740-2754;
26. R. W. Schrittwieser, C. Ionita, C. T. Teodorescu-Soare, O. Vasilovici, S. Gurlui, S. A. Irimiciuc, D. G. Dimitriu – Spectral and electrical diagnosis of complex space-charge structures excited by a spherical grid with orifice, *Physica Scripta* **92** (2017) 044001;

27. A. C. Benchea, D. Babusca, D. G. Dimitriu, D. O. Dorohoi – Quantum-mechanical study and spectral analysis of some derivatives of Rhodamine in solutions, *Spectrochimica Acta A* **172** (2017) 91-99;
28. M. Strat, E. Buruiana, D. Dumitriu, A. V. Sandu, S. Gurlui – Photophysical and photochemical properties of polyurethane coumarin studied by means of electronic spectra, *Revista de Chimie* **68** (2017) 1568-1572;
29. A. E. Scripa (Tudose), D. G. Dimitriu, D. O. Dorohoi – Dispersion of the visible rotatory power for aqueous glucose solutions, *University Politehnica of Bucharest Scientific Bulletin Series A – Applied Mathematics and Physics* **79** (2017) 307-313;
30. M. Gaina, A. C. Benchea, C. Podlipnik, D. G. Dimitriu – Quantum-mechanical characterization and spectral study of curcumin, *University Politehnica of Bucharest Scientific Bulletin Series B – Chemistry and Materials Science* **79** (2017) 133-142;
31. D. Babusca, A. C. Benchea, D. G. Dimitriu, D. O. Dorohoi – Solvatochromic characterization of Sudan derivatives in binary and ternary solutions, *Analytical Letters* **49 (16)** (2016) 2615-2626;
32. A. C. Benchea, D. Babusca, D. G. Dimitriu, D. O. Dorohoi – Quantum mechanical and absorption spectral characterization of Rhodamine B in ternary solution, *Analytical Letters* **49 (16)** (2016) 2606-2614;
33. C. T. Teodorescu-Soare, D. G. Dimitriu, C. Ionita, R. W. Schrittwieser – Experimental investigations of the nonlinear dynamics of a complex space-charge configuration inside and around a grid cathode with hole, *Physica Scripta* **91** (2016) 034002;
34. D. G. Dimitriu, S. A. Irimiciuc, S. Popescu, M. Agop, C. Ionita, R. W. Schrittwieser – On the interaction between two fireballs in low-temperature plasma, *Physics of Plasmas* **22** (2015) 113511;
35. D. O. Dorohoi, D. G. Dimitriu, I. Dumitrascu, C. B. Zelinschi, I. Breaban – Interferential method to determine the optical rotatory dispersion of crystalline layers, *U.P.B. Scientific Bulletin A* **77** (2015) 253-260;
36. V. Nedeff, G. Lazar, M. Agop, L. Eva, L. Ochiuz, D. Dimitriu, L. Vrajitoriu, C. Popa – Solid components separation from heterogeneous mixtures through turbulence control, *Powder Technology* **284** (2015) 170-186;
37. A. I. Barzic, D. G. Dimitriu, D. O. Dorohoi – Optical rotatory dispersion of Poly(propylene oxide) in Benzene solution determined from channelled spectra, *International Journal of Polymer Analysis and Characterization* **20** (2015) 565-571;
38. A. Barzic, D. Dimitriu, D. Dorohoi – New method for determining the optical rotatory dispersion of hydroxypropyl cellulose polymer solutions in water, *Polymer Engineering & Science* **55** (2015) 1077-1081;
39. S. A. Irimiciuc, O. Vasilovici, D. G. Dimitriu – Chua's circuit: control and synchronization, *International Journal of Bifurcation and Chaos* **25** (2015) 1550050;
40. I. A. Cosutchi, D. G. Dimitriu, C. B. Zelinschi, I. Breaban, D. O. Dorohoi – Optical activity of transparent polymer layers characterized by spectral means, *Journal of Molecular Structure* **1090** (2015) 39-43;
41. D. G. Dimitriu, D. O. Dorohoi – New method to determine the optical rotatory dispersion of inorganic crystals applied to some samples of Carpathian Quartz, *Spectrochimica Acta A* **131** (2014) 674-677;
42. M. Agop, D. G. Dimitriu, L. Vrajitoriu, M. Boicu – Order to chaos transition in plasma via non-differentiability. Experimental and theoretical investigations, *Journal of the Physical Society of Japan* **83** (2014) 054501 1-11;
43. S. Gurlui, O. Niculescu, D. G. Dimitriu, C. Ionita, R. W. Schrittwieser – Elementary processes in the dynamics of two simultaneously excited fireballs in plasma, *International Journal of Mass Spectrometry* **365-366** (2014) 42-47;
44. D. G. Dimitriu, M. Aflori, L. M. Ivan, V. Radu, E. Poll, M. Agop – Experimental and theoretical investigations of plasma multiple double layers and their evolution to chaos, *Plasma Sources Science and Technology* **22** (2013) 035007 1-11;
45. M. Agop, D. G. Dimitriu, O. Niculescu, E. Poll, V. Radu – Experimental and theoretical evidence of the chaotic dynamics of complex structures, *Physica Scripta* **87** (2013) 045501 1-13;
46. M. Aflori, M. Drobota, D. G. Dimitriu, I. Stoica, B. Simionescu, V. Harabagiu – Collagen immobilization on polyethylene terephthalate surface after helium plasma treatment, *Materials Science and Engineering B* **178(19)** (2013) 1303-1310;
47. D. O. Dorohoi, D. G. Dimitriu, M. Dimitriu, V. Closca – Specific interactions in N-ylid solutions, studied by nuclear magnetic resonance and electronic absorption spectroscopy, *Journal of Molecular Structure* **1044** (2013) 79-86;
48. M. Drobota, D. G. Dimitriu, B. Simionescu, I. Titorencu, M. Olariu, M. Aflori – Cytocompatibility of PET films after DC helium plasma treatments and collagen immobilization, *Revista de Chimie* **64(7)** (2013) 761-765;
49. F. Unga, M. M. Cazacu, A. Timofte, D. Bostan, A. Mortier, D. G. Dimitriu, S. Gurlui, P. Goloub – Study of the tropospheric aerosol types over Iasi, Romania, during summer of 2012, *Environmental Engineering and Management Journal* **12(2)** (2013) 297-303;
50. M. Agop, P. Nica, O. Niculescu, D. G. Dimitriu – Experimental and theoretical investigations of the negative differential resistance in a discharge plasma, *Journal of the Physical Society of Japan* **81** (2012) 064502 1-5;
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Annex B

List of the research grant as coordinator

1. **Electrostatic instabilities in magnetized and unmagnetized low-temperature plasmas**, PNCDI III – IDEAS grant, no. 193/2017, CNCSIS cod ID 355, 2017-2019;
2. **Self-organized structures in plasma**, bilateral grant Romania-Austria, no. 747/2014, 2014-2015;
3. **Study of the interaction between plasma and complex systems**, bilateral grant Romania-Austria, no. 557/2012, 2012-2013;
4. **Identification of the physical mechanisms involved in the appearance of spatial and spatio-temporal patterns in plasma. Applications**, PNCDI II – IDEAS grant, no. 56/2007, CNCSIS cod ID 409, 2007-2010;
5. **Electrostatic instabilities in plasma. Control methods**, CEEX type II grant – Excellence research projects for young researches, no. 5912/2006, CNCSIS cod ET 71, 2006-2008;
6. **Complex space charge structures in plasma. Physical models. Applications**, CEEX type II grant – Excellence research projects for young researches, no. 1499/2006, CNCSIS cod ET 69, 2006-2008;
7. **Development of a physical model for the plasma double layers**, CNCSIS type AT grant, no. 60GR/2006, CNCSIS cod AT 188, 2006-2007;
8. **Development of some experimental methods to control the chaos in plasma devices**, CNCSIS type AT grant, no. 33373/2004, CNCSIS cod AT 70, 2004-2005.

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