europass Curriculum vitae

PERSONAL INFORMATION

Dragoș Iustin Palade

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WORK EXPERIENCE

01/08/2016–Present — **Scientific Researcher**
National Institute for Laser, Plasma and Radiation Physics

23/09/2013–31/07/2016 — **Research assistant**
National Institute for Laser, Plasma and Radiation Physics, Magurele (Romania)

EDUCATION AND TRAINING

01/09/2015–Present — **PhD in Theoretical Physics** — EQF level 8
Faculty of Physics, University of Bucharest, Magurele (Romania)

01/09/2013–30/06/2015 — **Masters Degree in Theoretical Physics** — EQF level 7
Faculty of Physics, University of Bucharest, Magurele (Romania)
Thesis:
"Theoretical tools for simulations of cluster dynamics in strong laser pulses"

01/10/2010–30/06/2013 — **Bachelor's Degree in Theoretical Physics** — EQF level 6
Faculty of Physics, University of Bucharest, Magurele (Romania)
Thesis :
"Electron ground-state and dynamics in metallic clusters. A case of study: C60 fullerene"

14/09/2006–15/06/2010 — **High School** — EQF level 5
"Cuza -Vodă" National College, Huși (Romania)

PERSONAL SKILLS

Mother tongue(s): Romanian

Foreign language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B1	B2	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills:

- (Quantum) plasma physics
- Particle methods for plasma turbulence
- Kinetic transport models
- Numerical methods in computational physics

- (Quantum) hydrodynamic models
- Molecular dynamics, Density Functional Theory, RPA

Digital skills

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

Digital skills - Self-assessment grid

- Microsoft Office
- LateX
- Wolfram Mathematica
- Fortran

Driving licence B

ADDITIONAL INFORMATION

Conferences

- 18th European Fusion Theory Conference , October 7-10, 2019; Ghent, Belgium; Poster: " Decorrelation PDF Method for stochastic transportin strongly turbulent plasmas "
- 18th INTERNATIONAL CONFERENCE ON PLASMA PHYSICS AND APPLICATIONS CPPA 2019, 20th – 22nd June 2019 Iași, Romania; Presentation: " Stochastic transport in strongly turbulent plasmas "
- 18 th International Balkan Workshop on Applied Physics Constanța, Romania, July 10-13, 2018 ; Oral presentation: "Time-dependent orbital-free density functional theory for the fermionic gas"
- Joint Meeting "Quantum Fields and Nonlinear Phenomena" April, 2018, Sinaia, RomaniaOral presentation: "Turbulence and instabilities in quantum plasmas: pressure effects"
- "45th IOP Plasma Physics Conference", 9-13 April, 2018; Belfast, UK
- "Collisionless Boltzmann (Vlasov) Equation and Modeling of Self-Gravitating Systems and Plasmas", October 30 - November 3, 2017 ; Poster : " Non-equilibrium hydrodynamic pressure tensors from kinetic perspectives"
- Joint Meeting "Quantum Fields and Nonlinear Phenomena"

March, 2016, Sinaia, Romania

Presentation: "Turbulent transport of alpha particles in tokamak plasma" D.I. Palade, A. Croitoru, M. Vlad, F. Spineanu

- European Fusion Programme Workshop, 1 - 3 December 2014, Split, Croatia
- Joint ICTP-IAEA College in Advanced Plasma Physics, 18-29/08/2014, Trieste, Italy; Poster: "Self-organization of avalanches in tokamak plasma: a turbulence perspective"
- International Summer School for Advanced Studies: "Dynamics of open nuclear systems", Predeal, Romania, (9-20 July, 2012)

Presentations

- "Time-Dependent Orbital-Free Density Functional Theory for the fermionic gas", D.I. Palade; "Annual Scientific Session of Faculty of Physics", 22 June 2018, Bucharest, Romania
- "Kinetic corrections and rotational flows in the 2D turbulence of quantum plasmas", D.I. Palade V. Baran; "Annual Scientific Session of Faculty of Physics", 23 June 2017, Bucharest, Romania
- "Multiple surface plasmons in an unbounded quantum plasma half-space ", D.I. Palade; "Annual Scientific Session of Faculty of Physics", 24 June 2016, Bucharest, Romania
- "Extended Brown-Bolsterli model of RPA" , D.I. Palade, V. Baran; "Annual Scientific Session of Faculty of Physics", 23 June 2015, Bucharest, Romania
- "Optical response in C60 fullerene from a Time-Dependent Thomas-Fermi approach", D.I. Palade, V. Baran; "Annual Scientific Session of Faculty of Physics", 23 June 2014, Bucharest, Romania

- "Static polarizabilities in neutral metal clusters", D. I. Palade; "Annual Scientific Session of Faculty of Physics", 21 June 2013, Bucharest, Romania.
- "Thermometric measurements by Si diodes", P. Dragos Iustin, M. Bercu; "Annual Scientific Session of Faculty of Physics", 23 June 2012, Bucharest, Romania

Projects

Project: "Edge states effects on electron transport in graphene juctions"

at Bogolyubov Theoretical Laboratory, Joint Institute for Nuclear Research, Dubna, Russia, (7-28 July 2013)

Honours and awards

International Students Phycisist's Tournament (Mention-Romanian Team) at Moscow Institute of Physics and Technology, Dolgoprudny, Russia

(17-23 March, 2011)

Publications

- "Nonlocal orbital-free kinetic pressure tensors for the Fermi gas", D. I. Palade, Phys. Rev. B **98**, 245401 (2018)
- "The physical origin of the nucleon-nucleon attraction by pion exchange", N. Mandache, D.I. Palade
- "The Schrodinger-Poisson-Induction system: rotational effects in the fluid turbulence of a 2D quantum plasma", D. I. Palade, V. Baran, Romanian Journal of Physics **63**, 504 (2018)
- "Trapped electron modes turbulence: test modes approach", V. V. BA˘ RAN, D. I. PALADE, M. VLAD, F. SPINEANU, Romanian Journal of Physics **64**, 502 (2019)
- "Turbulent transport of alpha particles in tokamak plasmas", A. Croitoru, D. I. Palade, M Vlad, F Spineanu, 2017 Nucl. Fusion 57 036019
- "Semiclassical approaches to the Coupling between Nuclear Dipole Modes and Surface vibrations", V. Baran, D. G. David, D.I. Palade, Romanian Journal of Physics, 2016, vol 61, no 5-6
- "Multiple surface plasmons in an unbounded quantum plasma half-space" D. I. Palade, Phys. Plasmas 23, 074504 (2016)
- "N-Block Separable Random Phase Approximation: Dipole oscillations in sodium clusters and C60 fullerene", D.I. Palade, V. Baran, Journal of Physics B: Atomic, Molecular and Optical Physics, Vol 49, no 17
- Baran, V., et al. "Collectivity of the pygmy dipole resonance within schematic Tamm-Dancoff approximation and random-phase approximation models."*Physical Review C* 91.5 (2015): 054303.
- "Geometrical aspects of the interaction between expanding clouds and environment", F. Spineanu, M. Vlad, and D. Palade, arXiv:1508.04240 (2015)
- "Collective Dynamics and Fragmentation in Nuclear Systems" V. Baran, M. Marciu, D.I. Palade, M. Colonna, M. di Toro, A.I. Nicolin, R. Zus, Romanian Journal of Physics, 5-6 (2015)
- Palade, D. I., and V. Baran. "Optical response of C60 fullerene from a time dependent Thomas Fermi approach." *Journal of Physics B: Atomic, Molecular and Optical Physics* 48.18 (2015): 185102.
- Palade, D. I., and V. Băran "General static polarizability in spherical neutral metal clusters and fullerenes within Thomas -Fermi theory." (September, 2015, Romanian Journal of Physics)
- Monte Carlo tests of Orbital-Free Density Functional Theory D. I. Palade, http://arxiv.org/abs/1412.3956 (2014)
- "Regimes of self-organized criticality in the atmospheric convection" F. Spineanu, M. Vlad, D. Palade Chapter, Report of COST ES0905 collaboration (2014)