

PERSONAL INFORMATION

Radu Dragomir



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Sex M | Date of birth 03/05/1987 | Nationality romanian

POSITION

Scientific Researcher

WORK EXPERIENCE

2020-2022

Scientific Researcher

National Institute of Materials Physics, Magurele, Romania

- Main activities: simulations of nanoelectromechanical systems, transport through mesoscopic systems; numerical implementing of master equations, quantum optics

2020-2022

Research Assistant

Centre International de Formation et de Recherche Avancees en Physique (CIFRA)

2012-2020

Research Assistant

National Institute of Materials Physics, Magurele, Romania

2011-2012

Research Assistant

Horia Hulubei National Institute for Physics and Nuclear Engineering, Magurele, Romania

EDUCATION AND TRAINING

2012-2016

PhD thesis in theoretical physics: **Transport Phenomena and Exciton Dynamics in Optically Active Quantum Dots**; obtained with *suma cum laude* degree

Faculty of Physics, University of Bucharest. Supervisors: Prof. V. Baran, Dr. V. Moldoveanu

2009-2011

Master thesis, in theoretical physics: **“Computer Tomography. Reconstruction Algorithms”**

Faculty of Physics, University of Bucharest. Supervisors: Dr. M. Iovea

2007-2009

Bachelor thesis: in medical physics **“Reconstruction Algorithms in Computer Tomography.”**, score 9.57

Faculty of Physics, University of Bucharest. Supervisors: Dr. M. Iovea

2005-2007

Faculty of Computer Science, Polytechnics University of Bucharest.

Books - „Fenomene de transport si dinamica de excitoni in doturi cuantice active optic”, Horia Hulubei (2018)
(Transport phenomena and exciton dynamics in optically active quantum dots)

Publications

- „Quantum turnstile regime of nanoelectromechanical system”, R. Dragomir, V. Moldoveanu, S. Stanciu, B. Tanatar , Phys. Rev B 101, 165409 (2020)
- "Interaction and size effects in open nano-electromechanical systems", B. Tanatar, V. Moldoveanu, R. Dragomir, S. Stanciu, Physica Status Solidi B (2019)
- "Shiba States Coupled to a Resonant Cavity", Chirla, R; Horea, CD; Costea, TO; Dragomir, R; Manolescu, A; Moca, CP, TIM15-16 PHYSICS CONFERENCE vol 1796 (2017)
- "Unpinning of heavy hole spin in magnetic quantum dots" Physica Status Solidi B: Basic Solid State Physics. (2017)
- "Light-hole exciton mixing and dynamics in Mn-doped quantum dots", V. Moldoveanu, I. V. Dinu, R. Dragomir and B. Tanatar, Phys. Rev. B 93, 165421 (2016)
- "Intraband Relaxation of P-Shell Excitons in Disk-Shaped Quantum Dots", R. Dragomir, V. Moldoveanu, I. V. Dinu, Romanian Journal of Physics, Volume 60, Issue 5-6, p.686-690 (2015)
- "Dynamics and relaxation of sp biexcitons in disk-shaped quantum dots", V. Moldoveanu, I. V. Dinu, and R. Dragomir, Phys. Rev. B 89, 245415 (2014)
- "A new approximation for the quantum square well problem", Victor Barsan, Radu Dragomir, Journal of Optoelectronics and Advanced Materials (2012)

Presentations

- "Transient transport properties of nanoelectromechanical systems" at the conference „International Workshop on Advanced Nanomaterials”, Magurele, Romania, 18 september 2018,
- "Interaction and size effects in open nanoelectromechanical systems”, INCDFM, 6-8 june 2018,
- "Selective exchange effects in single-Mn doped quantum dots" at the conference „International Workshop of Materials Physics", Magurele, Romania, 23 may 2016
- "Exciton dynamics in quantum dots with a magnetic impurity" at the conference „Advances in Nanophysics and Nanophotonics”, Magurele, Romania august 2015 .
- „Optical manipulation of sp biexcitons in disk-shaped quantum dots” at the conference „Advanced many-body and statistical methods in mesoscopic systems”, Brasov, Romania 2014
- „Exciton dynamics in disk-shaped quantum dots” at the conference New trends in nanophysics & solar energy conversion Magurele, Romania september 2013

Patents

- Digitalization method for guitars with metallic strings using a matrix of conducting strips, A00600/2012
- Digitalization method for guitars with metallic strings using a maximum potential finding circuit. A00599/2012

Honours and awards

- 2004: 6th place at the National Physics Olympiad
- 2004: Qualification for the International Physics Olympiad small group
- 2004: 1st place at the Schwartz memorial contest
- 2005: 10th place at the National Physics Olympiad
- 2005: Qualification for the International Physics Olympiad (5th place) small group
- 2005: 2nd place at the contest Advertising Physics.
- 2005: 1st pace at the International Physics Contest “Phi”

Certifications Java Programming Certificate

Mother tongue(s) romanian

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
english	B1	C1	B1	C1	B1
Cambridge Advanced English Certificate					
french	A1	B1	A1	A1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Digital skills ■ good command of office suite (word processor, spread sheet, presentation software), Latex editing, Fortran, Mathematica, C, Java, MatLab

Other skills ■ Playing guitar