

## PERSONAL INFORMATION

## George Alexandru Nemnes

 405 Atomistilor, 077125, Magurele-Ifov, Romania



 nemnes@solid.fizica.unibuc.ro



Gender Male | Date of birth 11/02/1980 | Nationality Romanian

## WORK EXPERIENCE

## 2016 - Associate Professor and Scientific Researcher II

University of Bucharest, Faculty of Physics, "Materials and Devices for Electronics and Optoelectronics Research Center", 077125 Magurele-Ifov, Romania

- Teaching activities: Solid State Physics, Magnetism – Spintronics, Parallel Architectures, Computing systems.
- Research activities: physics of semiconductors; transport in nanostructures; molecular electronics; quantum information processing; density functional theory (DFT) calculations.
- Studies on graphene based structures, machine learning techniques (in collaboration with IFIN-HH).

Business or sector Teaching and Research

## 2009 - 2017 Lecturer and Scientific Researcher III

University of Bucharest, Faculty of Physics, "Materials and Devices for Electronics and Optoelectronics Research Center", 077125 Magurele-Ifov, Romania

- Teaching activities: Solid State Physics, Magnetism – Spintronics, Parallel Architectures, Computing systems.
- Research activities: physics of semiconductors; transport in nanostructures; molecular electronics; density functional theory (DFT) calculations.
- Studies on the physics of nanodetectors, advanced statistical methods (starting from 2011, in collaboration with IFIN-HH, Project: PN-II-ID-PCE-2011-3-0960)

Business or sector Teaching and research

## 2004 - 2008 PhD student, Researcher

Technical University Chemnitz, D-09107 Chemnitz, Germany

- Research activities: PhD thesis "Sampling procedures for low temperature dynamics on complex energy landscapes".

Business or sector Research

## EDUCATION AND TRAINING

## 2004 - 2008 PhD degree

Technical University Chemnitz, D-09107 Chemnitz, Germany (*magna cum laude*)

- Dynamics of complex systems; spin glasses; parallel computing; computational physics.

## 1998 - 2003 Diplomate Engineer

University of Bucharest, Faculty of Physics, Romania (during 2001-2003 student at Brandenburg Technical University)

- Solid State Physics.

## 2001 - 2003 **Physicist**

Brandenburg Technical University, Germany

- Theoretical physics; semiconductor physics; semiconductor devices; transport properties of nanotransistors.

### PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
German	C1	C1	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

- Interaction with BSc, MSc, PhD students: good communication skills gained through my experience as lecturer, BSc and MSc thesis coordinator.
- Collaborations with scientists in different institutions.

Organisational / managerial skills

Project manager of PN-II-RU-RP1/September2008 and PN-II-RU-PD-2011-3-0044. Member in other national and international projects.

Job-related skills

My research activity is focused on electrical and thermal transport properties of nanodevices, perovskite solar cells, applications of fractional exclusion statistics to interacting particle systems and DFT-based description of semiconductor and molecular systems. Many of the published papers concern computational studies in material science and modeling of electronic and optoelectronic devices.

Computer skills

C/C++ programming (scientific applications); paralel programming (MPI); computer cluster administration; Linux/Windows operating systems.

Driving licence

Category B vehicles

### ADDITIONAL INFORMATION

Publications  
Projects  
Conferences  
Seminars  
Honours and awards  
Memberships  
References

- 61 ISI papers, >72% as principal author
- Projects won in competition: PN-II-RU-RP1/September2008 and PN-II-RU-PD-2011-3-0044 with total budget > 160 000 EUR; computing time through FP7 project HP-SEE (contract 261499).
- Invited talks at Reykjavik University, TIM18 Physics conference, 4th Edition of IWMP 2019
- Prize of University of Bucharest Senate - Best research paper in Exact Sciences in 2017
- Romanian Representative in the COST Action MP 1209 "Thermodynamics in the quantum regime"
- Vice-president of the "Computational and Mathematical Physics" section of the Romanian Society of Physics (SRF); former president at the CMP section of SRF.
- Citations in Nature Physics (IF>22), Nature Photonics (IF>38), Nature Communications (IF>13), Chemical Reviews (IF>54) etc.

### ANNEXES

- List of publications.