

Curriculum Vitae

Name: Moldoveanu

Surname: Valeriu

Birth date: September 21, 1975

Current Position: Senior Researcher 1st rank at the National Institute of Material Physics (NIMP), Head of the Nanoscale Condensed Matter (administration tasks only), Head of the Theoretical Physics Group (scientific coordination, decisions on the research directions, administration tasks).

Education and diplomas:

- 1993-1998: Faculty of Physics, University of Bucharest.
- 1998-2000: Master Degree in Solid State Physics, Faculty of Physics, University of Bucharest.
- 2000-2004: PhD. in Theoretical Physics at University of Bucharest and Universite de la Mediteranee Aix Marseille II, ("cotutelle de these" - scholarship awarded by the French Government).

PhD Thesis: *Contributions to the mathematical theory of transport phenomena.* Defended May 24 2004 at Centre de Physique Theorique (CPT), Marseille, France.

Supervisors: Prof. Gheorghe Nenciu (Physics Faculty, Univ. of Bucharest) and Prof. Francois Bentosela (CPT, Univ. Aix Marseille II).

Positions: 1998-1999 - Young Research Assistant (Theoretical Physics Group - NIMP)

1999-2003 - Research Assistant (Theoretical Physics Group – NIMP)

2003-2005 - Researcher (Theoretical Physics Group – NIMP)

2005-2009 - Senior Researcher 3rd rank (Theoretical Physics Group - NIMP)

2009-2014 - Senior Researcher 2nd rank (Theoretical Physics Group - NIMP)

2014 - Senior Researcher 1st rank (Theoretical Physics Group - NIMP)

2011 - present - Head of the Theoretical Physics Group

Research interests: Physics of open quantum systems (e.g. optically active quantum dots, nanoelectromechanical systems, single-molecule magnets), Many-body effects in low-dimensional systems.

International research stages:

- NATO - TUBITAK (PC-A2 Basic Programme) fellowship at the Physics Faculty of the Bilkent University (Ankara, Turkey), july-september 2001, 2002, 2003, 2005.
- NATO Fellowship at Science Institute, Reykjavik, Iceland, november 2004.
- Postdoc position at Technion Institute of Technology, Haifa, Israel (may-june 2006).
- Guest Scientist at Bilkent University, Ankara, Turkey (3 months/year 2007, 2008, 2009), funded by the TUBITAK research agency.
- Research Fellow at Science Institute, Reykjavik, Iceland (3-4 months/year 2006-2010), funded by RANNIS research agency.
- Postdoctoral Fellow at Institut for Matematiske Fag, Aalborg University, Denmark (september 2010-april 2011).
- Guest Scientist at Bilkent University, Ankara, Turkey (two months/year 2018, 2019) TUBITAK Grant 117F125.
- Visiting Researcher at the School of Science and Engineering, Reykjavik University, Iceland (2018, 2019).

Hirsch index: 15 (from ISI Web of Knowledge) **No. citations:** 451

Researchgate profile: <http://www.researcherid.com/rid/B-3117-2011>.

Brain map ID: U-1700-030W-1797

Publications: 61 ISI articles/44 as first/corresponding author (26 Physical Review B - 19 as first/corresponding author, 4 New Journal of Physics - 2 as first author, 4 physica status solidi B).

Teaching experience: - 2000-2002: Tutoring in „Thermodynamics and Statistical Mechanics" for students in their 3rd year at Faculty of Physics, Bucharest.

- 2004: ATER (Attache Temporaire Enseignement et Recherche) at Universite de Toulon et du Var (courses: Series, Statistics and Probabilities).

- 2013: Master Courses at the Theoretical Physics Department of the Physics Faculty of the Bucharest University (Non-equilibrium transport in mesoscopic systems, Master equation approach to open systems).

Research project obtained and implemented as Principal Investigator:

2005.2007 Dephasing and interaction effects on the quantum interference in complex mesoscopic systems, CEEEX 2976/2005.

2008.2011 Control and optimization of quantum interference in charge and spin transport through mesoscopic systems, CEEEX PN2 515/2008.

2011-2016 Exciton dynamics in optically active quantum dots, PNII PCE-2011-3-0091.

2013-2014 Non-equilibrium transport in artificial nanomagnets and optically active quantum dots, Bilateral project Romania-Turkey COBIL 603/2013.

2016-2019 Electron-vibron coupling effect in nanoelectromechanical systems, PN III P4-PCE-2016-0084

Reviewer for Physical Review Letters, Physical Review B, Physical Review E.