

Curriculum Vitae

Birth : 1956, Romania

Address: National Institute of Physics and Nuclear Engineering (NIPNE)

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EDUCATION

Ph.D. in Theoretical Nuclear Physics (NIPNE, 1991). Thesis:

"Contributions to the unified description of spherical and deformed nuclei"

Faculty of Physics, University of Bucharest (1976-1981)

PERMANENT RESEARCH POSITION

1981-present: National Institute of Physics and Nuclear Engineering, Bucharest
Physicist/Research Assistant (1981-1989); Investigator (1990-1992)
Principal Investigator III (1993-1995); Principal Investigator II (1996-2005)
Principal Investigator I/Research Professor (2006-present)
Leave of absence: 1999, 2001-2006

TEMPORARY RESEARCH POSITIONS (longer than 3 months)

01.1999-11.1999 Visiting professor, Royal Institute of Technology, Stockholm
09.2001-06.2002 Visiting professor, RCNP, Osaka University, Japan
08.2002-08.2003 Visiting professor, Royal Institute of Tecknology, Stockholm
10.2004-04.2005 Chercheur associé au CNRS, IPN-Orsay/Universite Paris-Sud
05.2005-05.2006 Chercheur associé au CEA- Saclay & Bruyeres- le –Chatel

SHORT PERIOD POSITIONS (COLLABORATIONS) (longer than a month)

LBNL - Berkeley (08-09.2016); University of Kyoto (06-07.2016)
Universita Autonoma, Madrid (01-03.2015), CSIC- Madrid (10-12.204)
Sand Diego State University (02-04.2014); University of Delaware (04.2011)
IPN-Orsay/University Paris-Sud (1996-2016; approx. 1 month/year)
Royal Institute of Technology, Stockholm (1991-2019; approx 1 month/year)
University of Catania and LNS-Catania (1990 – 1998; approx. 1 month/year)

AWARDS: Prize “Horia Hulubei” of Romanian Academy (2010) for the work done on
“nuclear models and neutron stars”

SCIENTIFIC ACTIVITIES

Publications: 128 articles

Most important in: Phys. Rev. C (53), Phys. Lett. B (13), Phys. Rev. Lett. (2), Ann. of Phys. (1)
Nucl. Phys. A (10), J. Phys. G (6), Eur. J. Phys. A(3), PTEP (1)

(see <https://web.theory.nipne.ro/index.php/nsandulescu-publications> or/and Scopus ID)

Talks in international conferences: 64

(see <https://web.theory.nipne.ro/index.php/nsandulescu-conferences>)

Referee : Phys. Rev. C & Phys. Rev. Lett., Phys. Lett. B, J. Phys. G, EPJA, Prog. Th. Exp. Phys

Co-organized workshops

Perspectives of pairing phenomena in nuclear systems (02/2001), ECT*-Trento, Italy

Shell Model (05/2005), ESNT-Saclay, France (main organizer)

Exotic nuclei in relativistic and non-relativistic models (11/2005), ESNT-Saclay (main organizer)

Pairing and alpha - like quartet correlations in nuclei (09/2016), ECT*-Trento (main organizer)

Advances in proton-neutron pairing and α correlations I (9/2018), ESNT-Saclay(main organizer)

Advances in proton-neutron pairing and α correlations II (09/2019), ESNT-Saclay (main organizer)

Seminars at foreign universities/laboratories

- *USA*: Yale University (04.2000), LBNL-Berkeley (05.2009, 08.2016), San Diego(03.2014)
- *Japan*: RCNP/University of Osaka (09.2001), Yukawa Institute for Theoretical Physics/ University of Kyoto (05.2002, 06.2016), RIKEN-Tokyo (11.2001,07.2016)
- *Europe*: IPN/Universite Paris-Sud, GANIL-Caen, KTH-Stockholm, CSIC-Madrid, etc

Teaching: lectures for PhD students given in foreign universities and institutes

- *Pairing and excitations in exotic nuclei and neutron stars*
PhD School “Nuclear Physics and Astrophysics”, University of Barcelona (05/2005)
- *Corrélations d'appariement et excitations collectives dans les systèmes riches en neutrons*
Espace de Structure Nucléaire Théorique (ESNT), CEA- Saclay, France (04/2006)
- *Microscopic models for nuclear systems far from stability*
Royal Institute of Technology, Stockholm, Sweden (12/2006)
- *Superfluidity in nuclear systems: from nuclei to neutron stars*
Scuola Normale Superiore, University of Catania, Italy (02/2012)

Academic grants and management of research activity

- *Microscopic studies of nuclei far from stability (01.01-31.11.1999)*, with Royal Institute of Technology, Stockholm; **grant** (professorship) financed by Wenner-Gren Foundation.
- *Study of Unstable Nuclei (01.09.2001-30.06.2002)*, with RCNP, Osaka University, **grant** (professorship) financed by the Japanese Ministry of Education and Research, Japan.
- *Superfluidity in exotic nuclei and neutron stars (01.08.2002-01.08.2003)*, with Royal Institute of Technology, Stockholm; **grant** (professorship) financed by Swedish Foundation for International Cooperation .
- *Nuclear systems far from stability: from nuclei to neutron stars (2010-2013)*. **Project** in collaboration with IPN-Orsay/Universite Paris-Sud. Financed by IN2P3-France.
- *Thermodynamics of pairing correlations in nuclei (2012-2014)*. **Project** in collaboration with GANIL-Caen within the IFIN-IN2P3 agreement. Financed by IN2P3-France.
- *Advanced studies on neutron stars physics*. **Project** Idei nr 772/1.10.2007 financed by Romanian Authority for Scientific Research CNCS – UEFISCDI.
- *Pairing correlations and alpha condensation in superfluid nuclei*. **Project** Idei nr 57/2011,
- *Pairing, quartetting and alpha clustering in nuclear systems*. **Project** Idei nr 170/2017
- *Probing α -like correlations and pn pairing in self-conjugate nuclei*. **Project** Idei /2021