

## CURRICULUM VITAE

<http://www.theory.nipne.ro/~delion>



**Name :** DELION DORU-SABIN

**Date and place of birth:** 1951, June 5, Bacau, Romania

**Family:** Married (in 1977) with Delion Ecaterina-Daniela (b.1955), high school teacher.  
Children: Delion Daniel-Sabin (b.1978), software engineer.

**Address:** Aleea Cetatuii nr. 10, Bloc 25/1, Sc.A, Ap.26, sector 6, 060836-Bucharest, Romania

**Studies:** Faculty of Physics – Theoretical Physics, University of Sankt Petersburg-Russia (1976)

**Scientific Title:** Ph.D. in Physics (1989)

Thesis: "Description of M1 and M3 magnetic states in even-even nuclei and of M1 states in odd nuclei", Supervisor: Prof. A.A. Raduta

**Foreign Languages:** English (very good), Russian (very good), French (good)

**Positions:** 1) Senior Researcher of the first degree (since 1999)

Department of Theoretical Physics, "Horia Hulubei" National Institute of Physics and Nuclear Engineering (IFIN-HH), Bucharest, Romania

2) Associated professor, Physics Department, University of Bucharest (since 2000\1)

3) Professor, "Bioterra" university, Bucharest (2011)

4) Scientific secretary of the Academy of Romanian Scientists (since 2007)

5) Vice-president of the IFIN-HH Scientific council (2012-2016)

**Awards:** "Gheorghe Murgoci" Prize of the Romanian Academy (1983)

Outstanding Referee for the journals of the American Physical Society (2015)

**Specialization fields:** Theoretical Physics, Numerical Analysis

**Main areas of scientific activity:**

- Theoretical nuclear structure: collective magnetic states, alpha clustering, emission processes, cold fission, multi-phonon states, self-consistent Random Phase Approximation.
- Informatic systems and numerical methods.

**Highlighted achievements:**

- Nonlinear Schrodinger equation for Anomalous Large Angle Scattering (ALAS).
- Description of the anisotropy in alpha decay of deformed nuclei.
- Microscopic description of the absolute alpha and cluster decay widths.
- Microscopic Anharmonic Vibrator Model (MAVA) for two-phonon states.
- Systematics of proton emission.
- Universal decay rule for reduced decay widths.
- Goldstone mode for three-level Lipkin model within Selfconsistent RPA

### International cooperations:

- Physics Department of the Catania University, Italy: 1990-1995 (3 months/year)  
cooperation with prof. A. Insolia (alpha and cluster decay),  
prof. M. Baldo and prof. U. Lombardo (nuclear matter)
- Physics Department of the Napoli University, Italy: 1993 (1 month)  
cooperation with prof. N. Lo Iudice (magnetic collective states)
- Physics Department of the Tübingen University, Germany: 1992, 1994, 1996 (1 month/year)  
cooperation with prof. A. Faessler (double beta decay)
- Royal Institute of Technology Stockholm, Sweden: 1996 (6 months), 1997-20015 (1 month/year)  
cooperation with prof. R.J. Liotta (alpha and cluster decay, giant resonances)
- Institut des Sciences Nucleaires Grenoble, France: 1996, 1998 (3 months/year)  
cooperation with prof. P. Schuck (many-body methods)
- Physics Department of the Jyväskylä University, Finland: 1997-20014 (1 month/year)  
cooperation with prof. J. Suhonen (alpha and beta decays)
- Physics Department of the Buenos Aires University, Argentina: 1999 (1 month)  
cooperation with prof. G.G. Dussel (alpha clustering)
- Institut de Physique Nucleaires Orsay, France: 2000-20015 (1 month/year)  
cooperation with prof. P. Schuck and N.V. Giai (many-body methods)
- Physics Department of the Frankfurt University, Germany: 2001-2003 (2 months/year)  
cooperation with prof. W. Greiner (cold fission)
- KAVLI Institute of Theoretical Physics, Beijing, China: 2013, 2016 (1 month/year)  
cooperation with prof. Z.Z. Ren and F.R. Xu (alpha-decay)

### Publications

List of publications is given at the address:

<https://www.nipne.ro/research/publications/51-publications.html>

- Papers published abroad in ISI journals: 102 (mean number of authors: 3)  
Phys.Rev.**C** (53), Nucl.Phys.**A** (14), J.Phys.**G** (10), Phys.Lett.**B** (3), Phys.Rev.Lett. (4),  
Europhys. Lett. (4), Int.J. Mod.Phys. **E** (2), Phys.Rev.**A** (1), Phys.Rev.**E** (1), Z.Phys.**A** (1), etc.
- Review papers in ISI journals: 2  
Phys.Rep. (2)
- Papers published abroad in other journals: 3  
J.Eur.Opt.Soc. (1), Notes USSR Acad. (1), Seism.Res. (1),
- Papers published in ISI journals of the Romanian Academy: 31  
Rom.J.Phys. (28), Rom.Rep.Phys. (2), Proc. Rom. Acad. (1)
- Papers published in other journals of the Romanian Academy: 5  
Rom.J.Geophys. (4), Rev. Roum de Mec. Appl. (1)
- Papers published in Proceedings of international conferences: 19
- Books: 5: World Scientific (2), IOP (2), Springer-Verlag (1)
- Book chapters: 1

**Citations:** approx 1800 ISI citations, ( $h = 24$ ), approx. 2200 Google Scholar citations ( $h=26$ )

List of citations is given at the address:

<http://scholar.google.com/citations?user=i3AkpqgAAAAJ>

**Scientific reviewer:**

- Physical Review **C**
- Journal of Physics **G** and **D**
- European Physical Journal **A**
- Nuclear Physics **A**
- Physics Letters **B**
- International Journal of Modern Physics **E**
- Romanian Journal of Physics

**Organizer of international conferences:**

- International conference "**Earthquake Prediction and Seismic Risk**", București, 1983 (scientific secretary)
- International Summer School "**New Trends in Theoretical and Experimental Nuclear Physics**", Predeal, 1991 (scientific secretary)
- International Summer School "**Topics in Atomic and Nuclear Collisions**", Predeal, 1992 (scientific secretary)
- International Summer School "**Collective Motion and Nuclear Dynamics**", Predeal, 1995 (scientific secretary)
- International conference "**Shell-Model 1997**", Stockholm, 1997 (scientific secretary)
- International conference "**Advanced Many-body and Statistical Methods in Mesoscopic Systems I**", Constanta, 2011 (director)
- International Summer School "**Dynamics of open nuclear systems**", Predeal, 2012 (director)
- International conference "**Advanced Many-body and Statistical Methods in Mesoscopic Systems II**", Brasov, 2014 (director)

Bucharest, May 1, 2016

Dr. Doru S. Delion

