

## PERSONAL INFORMATION

## Dragos-Florian Nichita

 Bucharest, Romania

 [dragos.nichita@ndf.ro](mailto:dragos.nichita@ndf.ro)

Gender Male | Date of birth | Nationality Romanian

## WORK EXPERIENCE

November 2018 – Present

**Doctoral Research Assistant**

ELI-NP - IFIN-HH ([www.eli-np.ro](http://www.eli-np.ro))

30 Reactorului Street, Magurele, Ilfov, Romania

Photo-Fission, Neutron Rich Nuclei Study, Radioactive Ion Beams (RIBs) production

Business or sector Research and Development Public Institution

July 2019 – September 2019

**Specialization @ FRS Ion Catcher exp. setup; GSI, Germany**

$^{252}\text{Cf(sf)}$  source measurements; He ionization measurements

June 2018 – July 2018

**Specialization @ FRS Ion Catcher exp. setup; GSI, Germany**

Cryogenic Stopping Cell (CSC) gas purity optimization; DC and quadrupole fields optimization

February 2018 – October 2018

**Doctoral Research Assistant**

IFIN-HH ([www.nipne.ro](http://www.nipne.ro))

30 Reactorului Street, Magurele, Ilfov, Romania

Photo-Fission, Neutron Rich Nuclei Study

Business or sector Research and Development Public Institution

October 2001 – January 2018

**Executive Manager**

NDF Group (Shared time: NDF, QBM Prime, RORY Sol, Heyoo) ([www.ndf.ro](http://www.ndf.ro))

3 Valea Argesului Street, Bucharest, Romania

– Top level management

– Product development (Hardware, Software and Services)

Business or sector Electronics, IT, Energy and Financial - Private Institution

## EDUCATION AND TRAINING

2017 – Present

**PhD Student in Physics - Thesis Title: 'Radioactive ion beams driven by  $\gamma$ -rays induced fission of  $^{238}\text{U}$  and prompt fission  $\gamma$ -rays in  $^{233}\text{U}(n_{th},f)$ '**

ISCED 6

Doctoral School on Engineering and Applications of Laser and Accelerators (S.D.I.A.L.A.)  
University 'Politehnica' of Bucharest, Romania ([www.nipne.ro/sdiala](http://www.nipne.ro/sdiala))

Oct 2019

**Institut de Physique Nucléaire d'Orsay (IPN Orsay), Orsay, France  
Collinear laser spectroscopy**

June 2019

**Jyväskylä University, Jyväskylä, Finland  
Multi-nuclear transfer reaction products measurement**

Aug - Sept 2018 **EuroSchool on Exotic Beams, Leuven, Belgium**  
**Radioactive Ion Beams (RIBs)**

2015 – 2017 **Nuclear Physics – Master (graduated 1<sup>st</sup> grade)**

Atom and Nuclear Physics, Astrophysics, Elementary Particles (F.A.N.P.E.A.A.)

Faculty of Physics

University of Bucharest, Romania ([www.fizica.unibuc.ro](http://www.fizica.unibuc.ro))

- atomic and molecular physics
- low energy nuclear physics, nuclear structure, nuclear fission and fusion
- high energy physics, elementary particles, standard model
- astrophysics
- data analysis and statistics

2000 – 2005 **Cybernetics Faculty - Computer Science and Mathematics**  
**(5 year program)**

Academy for Economic Studies ([csie.ase.ro](http://csie.ase.ro))

15-17 Calea Dorobantilor, Bucharest, Romania

- cybernetics and feedback systems
- computer science and simulations
- high mathematics and dynamic systems (auto-evolving)
- management, micro and macro economics

## PERSONAL SKILLS

Mother tongue Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Italian	A2	A2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
[Common European Framework of Reference \(CEF\) level](#)

**Social and Communication skills**

- positive and constructive attitude based on strategic thinking;
- determined in achieving objectives;
- very good written and oral communication skills;
- mediating skills
- intercultural skills

**Organisational and Managerial skills**

- leadership profile proved by valuable achievements;
- strategic viewer in terms of organization;

**Computer skills**

- competent with most Microsoft packages
- competent with Linux Operating System
- experience with HTML and SQL
- experience with GIT for version control
- good programming in C, C++, FORTRAN
- good competencies with ROOT, GEANT4

## Presentations and Conferences

- January 2022 – Ion catchers with gamma beam driven production, Young Researcher and Young Engineer Days, ELI-NP, Romania
- December 2021 – Radioactive Ion Beams (RIBs) production possibility at the Gamma Factory, ISOLDE-CERN Workshop and Users meeting, Online
- March 2021 – Radioactive Ion Beam production at the Gamma Factory, Young Researcher Days, ELI-NP, Romania
- December 2020 – Radioactive Ion Beam production at the Gamma Factory, Physics Opportunities with the Gamma Factory, Online
- November 2020 – Cryogenic Stopping Cells; ELI-NP Autumn School, ELI-NP, Romania
- April 2019 – GEANT4 tools for the design and analysis of photo-fission experiments at ELI-NP; ENSAR2 workshop: GEANT4 in nuclear physics, CIEMAT, Madrid, Spain
- November 2018 – Optimization of the ion release yield for IGISOL experimental setup developed at ELI – NP; Young Researchers Day @ ELI-NP, Magurele, Romania
- July 2018 – The Cryogenic Stopping Cell of the IGISOL facility at ELI-NP ; EuroSchool on Exotic Beams, Leuven, Belgium
- June 2017 – Comparison of Anisotropic Flow of Charged Particles in p-p and Pb-Pb Collisions @ 3.5 TeV Beam Energy; Physics Faculty - University of Bucharest
- June 2016 – EduKit Presentation - A new training software in Nuclear Physics using Root framework, Physics Faculty - University of Bucharest (<http://www.fizica.unibuc.ro/SSFFB/Abstract.php?AbstractID=2146957426>)
- 2005 – 2015 Banking, Financial and Investment presentations - Financial Institutions, Romania ([http://www.1asig.ro/view\\_print.php?id=47679](http://www.1asig.ro/view_print.php?id=47679) ; [http://www.ndf.ro/site/subpage.php?url\\_page1\\_id=34](http://www.ndf.ro/site/subpage.php?url_page1_id=34))
- April 2003 – Computed Simulations for Financial Markets - Microeconomics; Academy of Economic Studies, Bucharest, Romania
- April 2004 – Pattern Recognition and Investment - Microeconomics; Decision Theory; Academy of Economic Studies, Bucharest, Romania

## Publications

- INCREASE: An in-cell reaction system for multi-nucleon transfer and spontaneous fission at the FRS ion catcher, A. Rotaru et al., *Nucl. Inst. And Meth. B*, 512, 2022
- Radioactive Ion Beam Production at the Gamma Factory, D. Nichita et al., *Ann. Phys. (Berlin)*, 534 (3), 2021, 2100207
- Mass measurements of As, Se and Br nuclei and their implication on proton-neutron interaction strength towards N = Z line, I. Mardor et al., *Phys. Rev. C*, 103, 2021
- Optimization of photo-fission fragment production in the ELISOL setup at ELI-NP, D. Nichita et al., *U.P.B. Sci. Bull., Series A*, Vol. 82, Iss. 1, 2020
- Instrumentation for high-resolution laser spectroscopy at the ALTO radioactive-beam facility, D. T. Yordanov et al., *Journal of Instrumentation*, 2020
- Multi-nucleon transfer reactions in  $^{238}\text{U} + ^{64}\text{Ni}$  using grazing model, A. Spataru et al., *U.P.B. Sci. Bull., Series A*, 82, 2020
- Production of Exotic Nuclei via MNT Reactions Using Gas Cells, A. Spataru et al., Vol. 51 *Acta Physica Polonica B*, 51, 2020
- Effective Z evaluation using monoenergetic gamma rays and neural networks, G. V. Turturic et al., *Eur. Phys. J. Plus.*, 135, 2020
- Ion extraction from gas cells with supersonic jets in Laval nozzles, A. State et al., *U.P.B. Sci. Bull., Series A*, 82, 2020
- Electromagnetic character of competitive  $\gamma\gamma/\gamma$  decay from  $^{137m}\text{Ba}$ , P-A. Soderstrom et al., *Nat. Commun.*, 11, 2020
- The cryogenic stopping cell of the IGISOL facility at ELI-NP, P. Constantin et al., *Il Nuovo Cimento* 42 C 60, 2019
- Source commissioning of ELIGANT-GG setup for gamma-ray coincidence measurements at ELI-NP, P-A. Soderstrom et al., *Rom. Rep. Phys.*, 71, 2019
- Simulation of circular radio-frequency carpets for ion extraction from cryogenic stopping cells, A. Rotaru et al., *U.P.B. Sci. Bull., Series A*, 81, 2019
- Unfolding of sparse high-energy  $\gamma$ -ray spectra from  $\text{LaBr}_3:\text{Ce}$  detectors, P.A. Soderstrom et al., *J. Instrum* 14 T11007, 2019
- The ELI-NP IGISOL radioactive ion beam facility, P. Constantin et al., *Nucl. Inst. And Meth. B*, 461, 2019

- Other activities and skills
- Robotics: Second day semi-finals in Robochallenge 9th edition – october 2016 (International competition organised by University Politehnica Bucharest) ([www.robochallenge.ro](http://www.robochallenge.ro))
  - Speaker for the “Institute of Space Science” – Magurele Romania, in the open days for school and high school students ( Matter / Antimatter balance in the Universe - april 2016) (<https://www.facebook.com/ROspacescience/photos/pcb.1135752023143610/1135751369810342/?type=3&theater> )
  - Computing training and Software architecture training at the “Institute of Space Science” – Magurele, Romania 2015 – 2016
  - Developing, Building and Programming different electronic devices: - Muon Particle Detector using the phase changing state of alcohol - 2016; - Geiger – Muller Detector using Arduino board 2015 ;
  - Software development team: EduKit – A training software for Nuclear Physics first years students; (<http://edukit.sourceforge.net/index.php?pag=team> ; <http://alicematters.web.cern.ch/?q=content/node/973>)
  - Founder member of 4Science Association ([www.4science.ro](http://www.4science.ro))

Driving licence B