

PERSONAL INFORMATION **Petruniac Marta**

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Sex F | Date of birth 03/09/1993 | Nationality Romana

## WORK EXPERIENCE

1/10/16-Present **Research Assistant**

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH)  
Reactorului Street, Number 30, 077125 Magurele (Romania)  
<http://www.nipne.ro/>

- X-Ray Computed Tomography
- Positron annihilation spectroscopy on polymeric membranes
- Implantations with highly charged metallic ions at high fluences using an ECR ion source

Business or sector Research and Development

## EDUCATION AND TRAINING

1/10/2017-Present **PHD in Nuclear Physics**

- Statistics for Nuclear Physics and Elementary Particle Physics
- Interactions of nuclear radiation with matter
- Classical radioactive decays and exotic radioactive decays
- Cosmogonic problems and notions of Astrophysics
- Reaction mechanisms in nuclear collisions at low and intermediate energies
- Notions of kinematics and dynamics relativistic
- Monte Carlo Methods in Nuclear Physics and High Energy Physics
- Scientific research methodology and statistical data processing

1/10/2015-1/06/2017 **Master in Medical Physics**

- Interactions of ionizing radiation with matter
- Biostatistics and medical computer science
- Statistical analysis of data experimental and calculation methods and simulation
- Radiation sources, dosimetry and radiological protection
- Spectroscopic techniques for investigation of atomic systems, molecular and nuclear
- Neural networks and applications
- Nuclear magnetic resonance. Physical principles and applications
- Nuclear structure models, nuclear and photonuclear reactions. Nuclear spectroscopy
- Detection methods in nuclear physics
- Properties of atomic systems and molecular systems. Models and experimental techniques
- Natural and artificial membranes and its implications in medical practice

- Acquisition and processing of bioelectrical signals
- Bionanotechnology

1/10/12-1/06/15 Medical Physics Degree

- General knowledge of physics
- Basic knowledge of chemistr

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2

Communication skills

- Experience in communication gained during the scientific sessions I took part in

Job-related skills

- Good problem solving skills
- Stress resistance
- Good written and oral communication skills
- Good organization and planning skills
- Ability to work well in a team environment and a diverse culture

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

ADDITIONAL INFORMATION

Publications  
Presentations  
Projects  
Conferences  
Seminars  
Honours and awards  
Memberships  
References  
Citations  
Courses  
Certifications

#### Presentations

1. Studiul tehnologiei ceramice neolitice timpurii cu ajutorul tomografiei computerizate, Adina Boroneant, Marta Petroneac, Florin Constantin, Marin Focșăneanu, Mircea Lechintan, Robert Sirbu, Daniel Stoicescu, "Repere Arheologice Banatene", Ediția a XXXV-a, Coronini, Romania, 5-8 iunie 2019
2. Marta Petroneac, 19 th International Balkan Workshop on Applied Physics, Constanta, Romania, July 16-19, 2019, oral presentation: Positron Annihilation Spectroscopy studies on polyethylene implanted with Cu ions using an ECR Ion Source
3. Tehnologia ceramicii neolitice timpurii din zona Porților de Fier. O abordare comparativa a unor vase autentice și experimentale din perspectiva tomografiei computerizate. Vasile Opris, Adina Boroneant, Marta Petroneac, Marin Focșăneanu, Robert Sirbu, Stelian Mihalceanu, Florin Constantin, Clive Bonsall, Simpozionul „Cercetari Arheologice si Numismatice”, editia a V-a, București, 19-20 septembrie 2019
5. Marta Petroneac, Conferinta Nationala a Doctoranzilor din Consorțiul Universitaria, editia a II-a 2019, oral presentation: Positron annihilation spectroscopy studies on polyethylene implanted with Cu ions using an ECR ion source.
6. Marta Petroneac, Sesiunea de comunicari stiintice a tinerilor cercetatori din IFIN-HH-2019, oral presentation: Positron annihilation spectroscopy studies on polyethylene implanted with Cu ions.
7. Marta Petroneac, Sesiunea de comunicari stiintice a tinerilor cercetatori din IFIN-HH-2018, oral presentation: Positron Spectroscopy - fundamentals and applications.

#### Publications:

1. Florin Constantin, Marin Focșăneanu, Marta Petroneac, A digital positron annihilation lifetime spectrometer, Romanian Journal of Physics 65, 901 (2020)
2. Florin Constantin, Marta Petroneac, Marin Focșăneanu (2020), Positron annihilation spectroscopy studies of implanted polymer membranes, 2020 Polymers Advanced Technologies 2020; 1-7. <https://doi.org/10.1002/pat.5079>
3. Vlad-Ștefan Cărăbiși, Anca-Diana Popescu, Marta Petroneac, Marin Focșăneanu, Daniela Cristea-Stan, Florin Constantin, EARLY IRON AGE FIBULAE FROM BALTA VERDE, ROMANIA: TYPOLOGY, COMBINATION AND MANUFACTURE, Beauty and the eye of the beholder : personal adornments across the millennia, 2020.
4. Anca-Diana Popescu, Vlad-Ștefan Cărăbiși, Robert Sirbu, Marta Petroneac, Daniela Cristea-Stan, Marin Focșăneanu, Stelian Mihalceanu, Florin Constantin, Tehnici de realizare a două fibule din prima epocă a fierului descoperite în Oltenia, STUDII ȘI CERCETĂRI DE ISTORIE VECHIE ȘI ARHEOLOGIE, 2020.
5. Alin FRÎNCULEASA, Roxana MUNTEANU, Daniel GARVĂN, Cătălin DINU, Octav NEGREA, Bianca PREDĂ-BĂLĂNICĂ, Laurențiu GRIGORAȘ, Angela SIMALCSIK, Luminița BEJENARU, Daniela CRISTEA-STAN, Florin CONSTANTIN, Marta PETRUNEAC, Marin FOCȘĂNEANU, Tiberiu Bogdan SAVA, Andreea DIMA, Gabriela SAVA, Maria ILIE, TURANICI LA DUNĂREA INFERIOARĂ – COMPLEXE CERCETATE RECENT ÎN NORDUL MUNTENIEI , Materiale și Cercetări Arheologice, 2020