




PERSONAL INFORMATION Tiberiu Bogdan Sava



 Horia Hulubei National Institute for Physics and Nuclear Engineering

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 Replace with type of IM service -

Sex M | Date of birth 07/09/1977 | Nationality Romanian

SUMMARY

- Solid knowledge in the fields of accelerator mass spectrometry (AMS), radiochemistry, ion beam applications, radiochronometry (^{14}C) and laboratory management / quality assurance;
- Competences in data analysis and data science;
- Experience in particle accelerators physics, ion optics design, installation and commissioning, operation and maintenance;
- Comprehensive view over the nuclear and atomic associated instrumentation and related techniques for radiation generation, transport, interaction and detection;
- Management skills in the research area: procurements, following up with the beneficiaries and collaborators, management and research activity planning, grant proposal elaboration;
- Coauthor in more than 100 scientific research papers https://www.researchgate.net/profile/Tiberiu_Sava
- Project manager/responsible of 6 national and international research projects, in the fields of nuclear instrumentation and environmental studies;
- Participant in the large collaborations at ISOLDE-CERN and NuSTAR-GSI/FAIR.

WORK EXPERIENCE

(05.2022→) *Scientific Advisor*

- Ionplus AG, Lezemstarsse 12, 8953, Dietikon-Zurich, Switzerland

(01.2020→05.2022) *Scientific Researcher II*

- Horia Hulubei – National Institute for Physics and Nuclear Engineering, 30th Reactorului St. 077125, Magurele-ILFOV, Romania

(02.2017→31.12.2019) *Scientific Researcher II, RoAMS Laboratory coordinator, Head of Tandem Accelerators Department,*

Horia Hulubei – National Institute for Physics and Nuclear Engineering, 30th Reactorului St. 077125, Măgurele-ILFOV, Romania

- Department manager; Coordinator of the infrastructure operation, maintenance and development (9 MV FN Tandem, 3 MV Tandetron for IBA analysis, 1 MV Tandetron AMS System);

- Coordinator of RoAMS Laboratory;

- Project manager for “Nucleu” and “Instalații de Interes Național” Programmes (2 MEuro /annual);

- Partner manager for uBioGas/24PCCDI and PATCULT/52PCCDI projects.

(06.2013 – 02.2017) *Scientific Researcher III, RoAMS Laboratory coordinator, Vice-Head of Tandem Accelerators Department*

Horia Hulubei – National Institute for Physics and Nuclear Engineering, 30th Reactorului St. 077125, Măgurele-ILFOV, Romania

- Founder and coordinator of RoAMS Laboratory;
- AMS technical responsible, performer of AMS measurements, responsible for data reduction algorithms, accelerator maintenance;
- Supervisor of sample preparation operations;
- First AMS measurement for Pu and U isotopes;

(04.2007 – 06.2013) *Scientific Researcher in Nuclear Physics Department*

Horia Hulubei – National Institute for Physics and Nuclear Engineering, 30th Reactorului St. 077125, Măgurele-ILFOV, Romania

- PhD thesis: "Development of a recoil mass spectrometer at IFIN-HH Tandem accelerator" under the coordination of Acad. Nicolae Victor Zamfir;
- Project manager in the research grant "Development of a moving tape collector at IFIN-HH Tandem accelerator";
- Designer of ToF BPM particle detector in collaboration with IKP-Cologne;
- Participant to nuclear structure experiments and data interpretation in national and International collaborations (ISOLDE-CERN, NuSTAR-GSI/FAIR).

(12.2003 - 04.2007) *Research Assistant in Nuclear Physics Department*

Horia Hulubei - National Institute for Physics and Nuclear Engineering, 30th Reactorului St. 077125, Măgurele-ILFOV, Romania

- Maintenance and upgrade of the Bucharest FN Tandem accelerator;
- Ion optics simulations to improve beam transmission and ion source functioning;
- Coauthor of a technical design report at FAIR with 100 m of ion-beam line design for FLAIR/APPA collaboration;
- Participant to the installation of a nanosecond beam pulsing system at 9 MV Tandem;
- Participant to nuclear structure experiments and data interpretation in national and international collaborations.

EDUCATION AND TRAINING

(10.2005 – 10.2010) *PhD degree*

University of Bucharest, Faculty of Physics, 405th Atomistilor St., 077125, Magurele-Ilfov, Romania.

- Thesis title: "Development of a recoil mass spectrometer at the IFIN-HH Tandem accelerator", coordinator Acad. Nicolae Victor Zamfir

(10.2003 – 10.2005) *Master of Sciences in Applied Physics/ Optical Technologies*

Faculty of Electronics, University „Politehnica” of Bucharest, Splaiul Independentei 313, Bucharest, Romania.

(10.1998 – 10.2003) *Bachelor Degree in Applied Physics*

Faculty of Electronics, University „Politehnica” of Bucharest, Splaiul Independentei 313, Bucharest, Romania.

PERSONAL SKILLS

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

	Replace with name of language certificate. Enter level if known.				
French	B1	B1	B1	A2	A2
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Technical skills and competences	-Solid competences in nuclear and particle accelerator physics and associated engineering; Familiar with ion optics simulations and radiation propagation, data analysis, programing, mass spectrometry and sample preparation chemistry, CAD design, vacuum technologies;
Computer skills and competences	-Python and SQL. Ion transport software codes: SIMION 3D, MIRKO (@ GSI). Other software tools: AutoCAD, Solid Works, LabView, SRIM/TRIM, Origin, Mathematica.
Social skills and competences	-Skilled trainer and explainer. Good sense of humor and empathy, teamwork and fair play. Openness in collaborations. I have experience of presenting my research work at more than 40 national and international conferences and workshops.
Organizational / managerial skills	- Vice-head (2013-2017) and Head (2017 → 2020) of Tandem Accelerators Department, direct responsible of RoAMS Laboratory; - Management skills in research area; - Member of the Scientific Council of IFIN-HH; - Secretary of the Bucharest Program Advisory Committee (PAC); - Member of the iThemba Labs PAC (South Africa) for ion beam applications; - Secretary of the Carpathian Summer School of Physics in 2016 and 2018; - Organizer of different workshops and events; - International established collaborations: Ion Beam Physics, ETH-Zurich; CNA Seville, Hertelendi Laboratory for Environmental Studies- Debrecen, Univ. of South Florida, Univ. of Arizona, IKP Cologne, VERA Viena.
Other skills	- Cooperative, supportive, clear and concise writing and presentation, handle details, able to assume and accomplish tasks beyond former experience
Courses/trainings	<ul style="list-style-type: none"> ▪ AMS training for radiocarbon measurements and data interpretation (ETH-Zurich); ▪ IAEA/EC/PNNL/ Nuclear Forensics Methodologies Workshop JRC Karlsruhe ▪ Edwards - Vacuum technologies training ▪ HEPTech-CERN Symposium ▪ ISOLDE-CERN spectrometer operation training ▪ Formator (career trainer)
Hobbies	- sports (ski, tennis, motorcycling, rock climbing), art and lecture.