europass

Curriculum Vitae

PERSONAL INFORMATION

Jalbă Cosmin Mihai

cosmin.jalba@eli-np.ro

POSITION WITHIN THE PROJECT

Engineer

WORK EXPERIENCE

January 2020-Present
Extreme Light Infrastracture -Nuclear Physics (ELI-NP)

Institutul Național Horia Hulubei Institutul Național Horia Hulubei de Fizică și Inginerie Nucleară (IFIN HH) Strada Reactorului 30, P.O. Box MG-6 077125 Măgurele, jud. Ilfov, Romania

2013 -2020
Microelectronica S.A

126 Erou Iancu Nicolae Street, Voluntari Ilfov

- Material Science Physicist (Metrology, Microscopy, Computer Tomography Services)

EDUCATION

2019 - Present
PhD Student at Doctoral School of Engineering and Applications of Lasers and Accelerators (SDIALA)

PhD thesis: *Ultra thin targets for radiation pressure experiments with PW class lasers*

2020 - 2022
Master in Theoretical and Computational Physics
Faculty of Physics, University of Bucharest
M.S Thesis: *Exploring the interaction between helical light and mesoscopic systems*

2017 - 2019
Master in Advanced and Nanostructured Materials
Faculty of Physics, University of Bucharest
M.S Thesis: *Dielectric characterization of heterostructures based on ultrathin ferroelectric layers of Hf and Zr oxides*

2013 - 2017
Bachelor's degree in Technological Physics
Faculty of Physics, University of Bucharest
B.Sc Thesis: *Growth of CdTe and ZnO semiconductor nanowires by electrodeposition in nanoporous alumina templates, for applications in photovoltaic cells*

TRAINING

2016 - CERN Summer School Student

2015 - Cleanliness Technology Courses
Clean Room exploitation and safetyness, Fraunhofer IPA - Stuttgart, Germany

PERSONAL SKILLS

piano

Mother tongue(s): Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B1	B1	B1
French	B2	B2	B2	B2	B2
	DELF				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Computer Proficiency: Mac OS and Windows operating systems

Driving licence: B

Activities

2019
Organizer

Non-destructive methods of investigation for Space

ILL Grenoble, OHB Germany, Politehnica University of Bucharest, Faculty of Physics - University of Bucharest, The European Commission- Department of Future Emergent Technologies

Reasearch Education Application Days, READ - 2019, Conference

2018-2019 Contract 40000125320/18/NL/CBi

R&D Department, Physicist

Metrology, Microscopy, Computer Tomography Services

ESA - European Space Agency

X-ray non-destructive investigation methods application for space - study for a GSTP Application

2017-2019

R&D Department, Physicist

Metrology, Microscopy, Computer Tomography Services

ILL Grenoble

Neutron scattering analysis for OHB bipod used in cosmic flights (beam-time and data interpretation)

2017 - Contract no 08170817/2017

R&D Department, Physicist

Metrology, Microscopy, Computer Tomography Services

CERN Geneve

CT scan for conductor section with superconducting strands (Nb_3Sn and Cu)

2017-2018

R&D Department, Physicist

Semiconductor assembling

ASM Europe

Full semiconductor assembly line - training

2016-2018

Editing, writing, compiling

Chrestomathy of Modern Physics - Physics for Enthusiasts, 4 volumes

Foundation Floarea Darurilor

Publications
Presentations
Projects
Conferences

- **The 4th International Conference on the Industry 4.0 model for Advanced Manufacturing,** AMP I4.0 2019, Belgrad 2019

- **"DEAR project: Lunar Dust Surface interactions, Risk and Removal investigations"**, 4th Symposium on Space Educational Activities Barcelona 2022
- **"High throughput Graphene production via Intercalation-Expansion method"** - 10th International Conference on Advanced Materials 2024
    - **C. Jalbă**, L. Dincă, N. Djourelov, C. Ticoș, A. Măgureanu, B. Diaconescu, **"The importance of chemical shift screening of the precursors for increasing the exfoliation efficiency of the graphite layers"**, *U.P.B. Scientific Bulletin - Series A, Vol. 85, Issue 3, 2023, ISSN 1223-7027*, https://www.scientificbulletin.upb.ro/rev_docs_arhiva/rez72e_153904.pdf.

- **C. Jalbă**, P. Milev, P. Schulz, A. Pflug, P. Ramm, O. Gusland, I. Ghitiu, R. Jalbă, A.Măgureanu, A. Molenţa, A. Pantea, G. Pantea, L. Jalbă, S. Özdemir-Fritz, G. Groemer, A. Müller, H. Steininger, D. McKeown, F. Gibson Kiely, J .Hamilton, **DEAR project: Lunar Dust Surface interactions, Risk and Removal investigations**, *4th Symposium on Space Educational Activities Barcelona, April 2022*, DOI: 10.5821/conference-9788419184405.019
- L. Dincă, **C. Jalbă**, B. Diaconescu, B. Mitu, **"Free-standing carbon targets for enhanced carbon ion acceleration with petawatt class lasers"**, *U.P.B. Scientific Bulletin - Series A*, Vol. 85, Issue 4, 2023, ISSN 1223-7027, https://www.scientificbulletin.upb.ro/rev_docs_arhiva/rez1a1_218560.pdf;
- L. Dincă, **C. Jalbă**, B. Diaconescu, M. Cernăianu, P. Ghenuche, B. Mitu, T. Asavei, F. Rotaru, **"The challenges of using double targets as a novel contrast-enhancement method for laser-driven acceleration"**, *U.P.B. Scientific Bulletin - Series A*, Vol. 86, Issue 1, 2024, ISSN 1223-7027, https://www.scientificbulletin.upb.ro/rev_docs_arhiva/rez32b_567280.pdf.
- A. Măgureanu, L. Dincă, **C. Jalbă**, R. F. Andrei, I. Burducea, D. G. Ghiţa, V. Năstasa, M. Gugiu, T. Asavei, O. Budriga, D. Ticoş, V. Crăciun, B. Diaconescu, C. M. Ticoş, **"Target characteristics used in laser-plasma acceleration of protons based on the TNSA mechanism"**, *Frontiers in Physics*, *Sec. Interdisciplinary Physics*, 2022, https://doi.org/10.3389/fphy.2022.727718;