

PERSONAL
INFORMATION**Jalbă Cosmin Mihai**

Affiliation

cosmin.jalba@eli-np.ro

Sex M Date of birth [REDACTED] Nationality Romanian

POSITION WITHIN
THE PROJECT**Engineer**WORK
EXPERIENCEJanuary 2020-Present
Extreme Light Infrastructure -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, Romania2013 -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:** *Graphene species for particle acceleration experiments with PW class laser***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 safety, 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 GeneveCT 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. Djourelou, 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. Ghitu, R. Jalbă, A. Măgureanu, A. Molența, 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](https://doi.org/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. Ghița, V. Năstasa, M. Gugiu, T. Asavei, O. Budriga, D. Ticoș, V. Crăciun, B. Diaconescu, C. M. Ticoș, “**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>;