

Maksym Liul

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Position Junior scientist

Professional Experience

11.2023 – Present B. Verkin ILTPE (Kharkiv, Ukraine).
Junior scientist.

03.2018 – 06.2018 Laboratoire de l'Accélérateur Linéaire (Orsay, France).

Theoretical physicist, intern within preparation of the Master thesis (grade 97 out of 100).

➤ Theoretical description and calculation of some parameters for weak three-body decays of charmed baryons.



Education/Qualifications

2019 – 2023 Ph.D. student at ILTPE. Specialization: Physics and Astronomy.

2017 – 2018 Master student on the program “Nuclei, Particles, Astroparticles, Cosmology”, University Paris-Sud.

2012 – 2018 Master of Applied Physics at Faculty of Physics and Technology, V.N. Karazin Kharkiv National University. Specialization: Experimental Nuclear Physics and Plasma Physics
GPA - 5 out of 5.



Other Experience/Activities

2015 – 2016 Head of the education department of the NGO “Foundation of Regional Initiatives”.
Organization of 7 educational trainings and 4 cultural events as 9 person team leader.

2014 – 2016 Students' Dean of the Faculty of Physics and Technology. Mediation between the university administration and the students. Participation as a team leader or a member of an organization committee in more than 10 faculty and university events.

Awards



Grant from the National Academy of Sciences of Ukraine for research works of young scientists (2023 – 2024).

The National Academy of Sciences of Ukraine scholarship (2023 – 2025).

The Army Research Office Grant (2020 – 2023).

The French Government scholarship (2017).

Victor Pinchuk Foundation scholarship (2015).

Diploma of the Third degree in the contest for the best presentation at the VI International Science School (Dubna, Russia, 2015).

Diploma of the III degree on IX All-Ukrainian Students' Tournament of Physicists (2012).

Kharkiv City Council scholarship (2012).

International experience

Workshop on Singly and Doubly Charmed Baryons (Paris, France, 2018).

Trans-European School of High Energy Physics (Ljubljana, Slovenia, 2017).

European Summer School 2017 (Strasbourg, France 2017).

Summer School on Particle Physics (Trieste, Italy, 2017).

International School of Subnuclear Physics (Erice, Italy, 2016).

Erasmus+ Project “Encode Your Dreams” (Bursa, Turkey, 2016).

Project “Study Tours to Poland” (Olsztyn, Poland, 2016).

Erasmus+ Project “The Dialog Among Colours” (Bursa, Turkey, 2016).

V and VI International Science School “Instruments and Methods of Experimental Nuclear Physics” (Dubna, Russia, 2014, 2015).



Languages

Russian, Ukrainian: native speaker; English: C1; French: A2; Chinese: A1.

Publications

M.P. Liul, C.-H. Chien, C.-Y. Chen et al., Coherent dynamics of a photon-dressed qubit, Phys. Rev. B **107**, 195441 (2023),
<https://journals.aps.org/prb/abstract/10.1103/PhysRevB.107.195441>.

M.P. Liul, S.N. Shevchenko, Rate-equation approach for multi-level quantum systems, Low Temp. Phys. **49**, 102–108 (2023),
<https://aip.scitation.org/doi/10.1063/10.0016482>.

A.S. Fomin, S. Barsuk, A.Y. Korchin, et al., The prospect of charm quark magnetic moment determination, Eur. Phys. J. C **80**, 358 (2020),
<https://doi.org/10.1140/epjc/s10052-020-7891-0>.

M.P. Liul, A.I. Ryzhov, S.N. Shevchenko, Interferometry of multi-level systems: rate-equation approach for a charge qudit, Eur. Phys. J.: Spec. Top. (2023),
<https://doi.org/10.1140/epjs/s11734-023-00977-4>.

Publications in preparation

A. I. Ryzhov, **M. P. Liul**, S. N. Shevchenko, M. F. Gonzalez-Zalba, Franco Nori, Four driving regimes of a double-quantum dot.

Conferences

M. P. Liul, and S. N. Shevchenko, "Parallel double quantum dot coupled to a fermionic sea", I International Advanced Study Conference "Condensed Matter and Low Temperature Physics 2020", (CM<P 2020), 8-14 June, 2020, Kharkiv, Ukraine, Online.

M. P. Liul, A. I. Ryzhov, and S. N. Shevchenko, "High-frequency quantum interferometry for a double-quantum dot", II International Advanced Study Conference "Condensed Matter and Low Temperature Physics 2021", (CM<P 2021), 6-12 June, 2021, Kharkiv, Ukraine, Online.

M. P. Liul, C.-H. Chien, C.-Y. Chen, P. Y. Wen, J. C. Chen, Y.-H. Lin, S. N. Shevchenko, Franco Nori, I.-C. Hoi, "Coherence dynamics of a photodressed qubit", American Physics Society March meeting 2022, ("APS March meeting"), 14-18 March, 2022, Chicago, USA, Online.

M. P. Liul, and S. N. Shevchenko, "Rate-equation approach for qudits", American Physics Society March meeting 2023, ("APS March meeting"), 20-22 March, 2023, Los-Angeles, USA, Online.

M. P. Liul, S. N. Shevchenko, "Rate-equation approach for the solid-state artificial atom", III International Advanced Study Conference "Condensed Matter and Low Temperature Physics 2023", (CM<P 2023), 5-11 June, 2023, Kharkiv, Ukraine, Online.

