

CURRICULUM VITAE

Surname: CHIZHOV
First Name: Alexei
Middle Name: Vladimirovich
Citizenship: Russian Federation
Date & Place of Birth : March 26, 1959
Orekhovo-Zuevo, Moscow Region, Russia
Marital Status: married
Home Address: St. Vekslera 15, apt. 604
141980 Dubna, Moscow Region, Russia
Academic Degree: D.Sc. (Dr.hab.)
Institute Position: Leading Researcher
Bogoliubov Laboratory of Theoretical Physics
&
Laboratory of Radiation Biology
Joint Institute for Nuclear Research
141980 Dubna, Moscow Region, Russia
Phone: +7 (49621) 62123
Fax: +7 (49621) 65084
E-Mail: chizhov@theor.jinr.ru
Provisional Position: Professor
Dubna State University
141980 Dubna, Moscow Region, Russia

ACADEMIC DEGREES

1982	Diploma with Honors in Physics	Physics Department Moscow State University Moscow, Russia
1985	Ph.D. in Theoretical and Mathematical Physics	Bogoliubov Laboratory of Theoretical Physics Joint Institute for Nuclear Research
2010	D.Sc. (Dr.hab.) in Theoretical Physics	Dubna, Russia

UNIVERSITY EDUCATION

1976–1982	Student	Quantum Field Theory and
1982–1985	Postgraduate student	Statistical Physics Division Physics Department Moscow State University

PROFESSIONAL CAREER

RESEARCH POSITIONS

1987–1989	Junior Researcher	
1989–1993	Scientific Researcher	
1993–2010	Senior Researcher	
since 2010	Leading Researcher	Bogoliubov Laboratory of Theoretical Physics
	&	
since 2019	Leading Researcher	Laboratory of Radiation Biology Joint Institute for Nuclear Research Dubna, Moscow Region, Russia

ACADEMIC POSITIONS

1985–1987	Assistant Lecturer	Physics Department Moscow Institute of Radio-Engineering, Electronics and Automation Dubna, Moscow Region, Russia
2002–2010	Associate Professor	Departments of Biophysics & Nanotechnology and New Materials
2010–present	Professor	Dubna State University Dubna, Moscow Region, Russia

PROFESSIONAL ACTIVITIES

- Member of the Editorial Board of a journal “Nanosystems: Physics, Chemistry, Mathematics” at the ITMO University, St.–Petersburg.
- Member of the State Examination Commission for the certification of masters in the field of “Physics” at the Dubna State University.
- Member of the State Examination Commission for the certification of bachelors in the field of “Chemistry, Physics and Mechanics of Materials” at the Dubna State University.

HONORS AND FELLOWSHIPS

1993	Second Prize in Theoretical Physics	JINR, Dubna, Russia
1994	National Science Foundation Fellowship	Rensselaer Polytechnic Institute Troy, U.S.A.
1996	Max-Planck Fellowship	Humboldt-Universität Berlin, Germany
1999-2000	Deutsche Forschungsgemeinschaft Fellowship	Friedrich-Schiller-Universität Jena, Germany
2000-2001	Belarusian Republican & Russian Foundations for Basic Research Fellowship	JINR, Dubna, Russia
2008-2011	Russian Foundation for Basic Research Fellowship	JINR, Dubna, Russia
2017	Insignia in labour “Veteran of Atomic Energy and Industry”	State Corporation “ROSATOM” Moscow, Russia

JINR Research Program Fellowships: Heisenberg – Landau (1997–2000, 2015–2018), Bogoliubov – Infeld (1999, 2017), Ter-Antonyan – Smorodinsky (2014, 2019), Republic of Serbia – JINR (2013–2019), Republic of Belarus – JINR (2017–2019)

TEACHING EXPERIENCE

Courses taught in the last 5 years at the Dubna State University:

- Introduction to the theory of transport of ionizing radiation
- Quantum mechanics
- Quantum solid state physics
- Quantum physics

Supervisor of diploma practice for students of the Biophysics Department and the Department of Nanotechnology and New Materials.

Lecturer at Conferences and Schools for young scientists and specialists: DIAS School (JINR, 2006), School-Seminar on Fundamental Physics (Vladimir-Suzdal, Russia, 2005, 2008, 2009, 2010, 2014), Symposium on Optics & its Applications (Yerevan, Armenia, 2014, 2019).

RESEARCH INTERESTS

- Quark-bag based approach to the description of the structure of elementary particles and multi-quark phase transitions at high energies
- Analytical approach to fermion pair production in e^+e^- annihilation in the Standard Model
- Phase operator and phase distributions of non-classical states of the electromagnetic field
- Statistical and fluctuation properties of non-classical states of the electromagnetic field and their use in the quantum information problems
- Quantum correlation effects in the processes of interaction of electromagnetic radiation with nanostructured systems in solids and biology
- Energy transport in biological and polymer macromolecular systems

PUBLICATIONS

A total number of publications: **108**

H-index: 14

SELECTED PUBLICATIONS for 2014–2019

1. **A.V. Chizhov**, D. Chevizovich, Z. Ivić, S. Galović.
Temperature dependence of quantum correlations in 1D macromolecular chains.
Nanosystems: Physics, Chemistry, Mathematics, **10** (2), 141-146 (2019).
2. D. Čevizović, **A. Chizhov**, A. Reshetnyak, Z. Ivić, S. Galović, S. Petković.
On the vibron-polaron damping in quasi 1D macromolecular chains.
Journal of Physics: Conference Series, **965** (1), 012011–8 (2018).
3. D. Čevizović, **A.V. Chizhov**, S. Galović.
Vibron transport in macromolecular chains with squeezed phonons.
Nanosystems: Physics, Chemistry, Mathematics, **9** (5), 597-602 (2018).
4. G. Alber, **A.V. Chizhov**.
Spectral properties of spontaneous photon emission by a material two-level system in a parabolic cavity.
Nanosystems: Physics, Chemistry, Mathematics, **8** (5), 559-566 (2017).

5. D. Čevizović, **A.V. Chizhov**.
Temperature effects on fidelity of reflection from absorbing Bragg mirrors.
Journal of Physics: Conference Series, **672** (1), 012003–5 (2016).
6. D. Čevizović, Z. Ivić, S. Galović, A. Reshetnyak, **A. Chizhov**.
On the vibron nature in the system of two parallel macromolecular chains: The influence of interchain coupling.
Physica B: Condensed Matter, **490**, 9–15 (2016).
7. D. Čevizović, S. Petković, S. Galović, A. Reshetnyak, **A. Chizhov**.
Vibron properties in quasi 1D molecular structures: the case of two parallel unshifted macromolecular chains.
Journal of Physics: Conference Series, **670** (1), 012018–6 (2016).
8. D. Čevizović, S. Petković, S. Galović, **A. Chizhov**, A. Reshetnyak.
The influence of interchain coupling on intramolecular oscillation mobility in coupled macromolecular chains: The case of coplanar parallel chains.
AIP Conference Proceedings, **1683**, 020030–4 (2015).
9. D. Čevizović, Z. Ivić, S. Galović, **A. Chizhov**, A. Reshetnyak.
Vibron transport in macromolecular chains.
AIP Conference Proceedings, **1623**, 79–82 (2014).

Contributions in Conference Books of Theses and Abstracts: **13**