

Тигран Степанович Акопян

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Научно-исследовательский институт физики

Տեսական ֆիզիկայի լաբորատորիա

Ведущий научный сотрудник

🎓 Образование

Учреждение	ЕГУ
Факультет	Физический факультет, кафедра теоретической физики
Дата	1989 - 1992
Степень / Звание	Аспирант

Учреждение	ЕГУ
Факультет	Физический факультет, кафедра теоретической физики
Дата	1982 - 1989
Степень / Звание	Магистр

🎓 Ученое звание/Ученая степень

Учреждение	ЕГУ
Дата	2013
Степень / Звание	Доктор наук
Специальность	Физико-математические науки
Научная тема	Точные методы в одномерных и квази-одномерных системах

Учреждение	Ереванский Институт Физики
Дата	1996
Степень / Звание	Кандидат наук
Специальность	Физико-математические науки
Научный руководитель	Ara Sedrakyan
Научная тема	R-матрицы квантовых групп

🌐 Знание языков

Հայերեն English Русский Français

📁 Опыт работы

Учреждение	Национальная научная лаборатория имени А. Алиханяна (Ереванский физический институт)
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Период времени 2022 до настоящего времени
Звание/степень ведущий научный сотрудник

Учреждение ЕГУ
Период времени 2021 до настоящего времени
Звание/степень ведущий научный сотрудник

Учреждение кафедра теоретической физики, ЕГУ
Период времени 2013 до настоящего времени
Звание/степень доцент

Публикации

Статья

Dunkl symplectic algebra in generalized Calogero models

Tigran Hakobyan

Journal of Physics A: Mathematical and Theoretical 2025 065201

Статья

Two-dimensional topological paramagnets protected by Z3 symmetry: Properties of the boundary Hamiltonian

Hrant Topchyan, Vasilii Iugov, Mkhitar Mirumyan, Tigran Hakobyan, Tigran A. Sedrakyan,

Ara G. Sedrakyan

SciPost Physics 2025 068

Статья

Parafermionic representation of Potts-based cluster chain

Tigran Hakobyan, Raffi Varosyan

Physica B: Condensed Matter 2025 417297

Статья

Dunkl Symplectic Algebra in Generalized Calogero Model with Reflection Group Symmetry

Tigran Hakobyan

Bulgarian Journal of Physics 2025 108-113

Статья

Simple Extension of Kitaev Chain for Z3 Parafermions [Простое обобщение цепочки Китаева для Z3 парафермионов]

Hakobyan T.S., Varosyan R.H., Harutunyan G.H.

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024 28-35

Статья

Sectorial Ground-State Nondegeneracy in Majorana Chains with Interaction and Orthogonal Symmetry [Невырожденность секториальных основных состояний в майорановских цепочках с взаимодействием и ортогональной симметрией]

T. S. Hakobyan

Статья

Z_3 and $(\times Z_3)^3$ symmetry protected topological paramagnets.

Hrant Topchyan, Vasilii Iugov, Mkhitar Mirumyan, Shahane Khachatryan, Tigran Hakobyan,

Tigran Sedrakyan

Journal of High Energy Physics 2023 35

Статья

Algebra of Dunkl Laplace-Runge-Lenz vector

Misha Feigin, Tigran Hakobyan

Letters in Mathematical Physics 2022 59, 1-29

Статья

Superintegrable systems related to truncated Calogero model

T. Hakobyan, S. Vardanyan

Proceedings of Science 2021 006/10

Статья

Lowest energy states of an $O(N)$ fermionic chain

Tigran Hakobyan

Physical Review B 2020 085128(1-18)

Статья

Symmetry Algebra of Dynamical and Discrete Calogero Models

Tigran Hakobyan, Seda Vardanyan

Physics of Particles and Nuclei Letters 2020 734-737

Статья

Symmetries of the generalized Calogero model and the Polychronakos-Frahm chain

Tigran Hakobyan

Physical Review D 2019 105011(1-7)

Статья

Myers-Perry Conformal Mechanics

H. Demirchian, T. Hakobyan, A. Nersessian, M.M. Shekh-Jabbari

Physics of Particles and Nuclei 2018 860-864

Статья

Integrability of Calogero-Coulomb Problems

Tigran Hakobyan, Armen Nersessian

Physics of Particles and Nuclei Letters 2017 331-335

<http://link.springer.com/journal/11497>

Статья

Constants of Motion in Deformed Oscillator and Coulomb Systems

Tigran Hakobyan, Armen Nersessian, Hovhannes Shmavonyan

Physics of Particles and Nuclei Letters 2017 400-402

<http://link.springer.com/journal/11497>

Статья

Symmetries in superintegrable deformations of oscillator and Coulomb systems: Holomorphic factorization

Tigran Hakobyan, Armen Nersessian

Physical Review D 2017 025014

<http://journals.aps.org/prd/>

Статья

Two-center Coulomb Problem with Calogero Interaction

Tigran Hakobyan, Armen Nersessian

Physics of Atomic Nuclei 2017 383-388

<http://link.springer.com/journal/11450>

Статья

Lobachevsky geometry in TTW and PW systems

Tigran Hakobyan, Armen Nersessian, Hovhannes Shmavonyan

Physics of Atomic Nuclei 2017 591-597

<http://link.springer.com/journal/11450>

Статья

Near horizon extremal Myers-Perry black holes and integrability of associated conformal mechanics

Tigran Hakobyan, Armen Nersessian, M.M.Sheikh-Jabbari

Physics Letters B 2017 586-591

<http://www.journals.elsevier.com/physics-letters-b>

Статья

CALOGERO MODEL AND ITS GENERALIZATION

T.Hakobyan, A.Nersessian

Вестник Российско-Армянского Университета: Физико-математические и естественные науки 2017 91-95

<http://science.rau.am/rus/50/701>

Статья

Spherical Calogero model with oscillator/Coulomb potential: Classical case

Francisco Correa, Tigran Hakobyan, Olaf Lechtenfeld, Armen Nersessian

Physical Review D 2016 125008,9

<http://journals.aps.org/prd/>

Статья

Spherical Calogero model with oscillator/Coulomb potential: Quantum case

Francisco Correa, Tigran Hakobyan, Olaf Lechtenfeld, Armen Nersessian

Physical Review D 2016 125009

<http://journals.aps.org/prd/>

Статья

Integrability and separation of variables in Calogero-Coulomb-Stark and two-center Calogero-Coulomb systems

Tigran Hakobyan, Armen Nersessian

Physical Review D 2016 045025,14

<http://journals.aps.org/prd/>

Статья

Coulomb systems with Calogero Interaction

Tigran Hakobyan, Armen Nersessian

Proceedings of the YSU A. Physical and Mathematical Sciences 2016 15-19

<http://www.ysu.am/science/en/journals>

Статья

On Dunkl angular momenta algebra

Misha Feigin, Tigran Hakobyan

Journal of High Energy Physics 2015 107,22

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/13130>

Статья

Lowest-energy states in parity-transformation eigenspaces of SO(N) spin chain

Tigran Hakobyan

Nuclear Physics B 2015 248-258

<http://www.sciencedirect.com/science/journal/05503213>

Статья

Runge-Lenz vector in Calogero-Coulomb problem

Tigran Hakobyan, Armen Nersessian

Physical Review A 2015 22111

<http://journals.aps.org/prd/>

Статья

Superintegrability of generalized Calogero models with oscillator or Coulomb potential

Tigran Hakobyan, Olaf Lechtenfeld, Armen Nersessian

Physical Review D 2014 101701(R),6

<http://journals.aps.org/prd/>

Статья

The structure of invariants in conformal mechanics

Tigran Hakobyan, David Karakhanyan, Olaf Lechtenfeld

Nuclear Physics B 2014 399-420

<http://www.sciencedirect.com/science/journal/05503213>

Статья

The spherical sector of the Calogero model as a reduced matrix model

Tigran Hakobyan, Armen Nersessian, Francisco Correa, Olaf Lechtenfeld

Nuclear Physics B 2012 250-266

<http://www.journals.elsevier.com/nuclear-physics-b/>

Статья

Integrable generalizations of oscillator and Coulomb systems via action-angle variables

Tigran Hakobyan, Armen Nersessian, Armen Saghatelian, Vahagn Yeghikyan, Olaf Lechtenfeld

Physics Letters A 2012 679-686

<http://www.journals.elsevier.com/physics-letters-a>

Статья

Action-angle variables and novel superintegrable systems

Armen Nersessian, Tigran Hakobyan, Armen Saghatelian, Vahagn Yeghikyan, Olaf Lechtenfeld

Physics of Particles and Nuclei 2012 577-582

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11496>

Образовательный Руководство

Չուզանի են ծրագրավորում MPI փաթեթի միջոցով

S.U. Հակոբյան

2012 42

Статья

Invariants of the spherical sector in conformal mechanics

Tigran Hakobyan, Armen Nersessian, Armen Saghatelian, Olaf Lechtenfeld

Journal of Physics A-Mathematical and Theoretical 2011 055205, 14 pages

<http://iopscience.iop.org/journal/1751-8121>

Статья

Invariants of the spherical sector in conformal mechanics

Tigran Hakobyan, Armen Nersessian, Armen Saghatelian, Olaf Lechtenfeld

Journal of Physics A-Mathematical and Theoretical 2011 055205, 14

<http://iopscience.iop.org/journal/1751-8121>

Статья

Ordering of Energy Levels for Extended SU(N) Hubbard Chain

Tigran Hakobyan

Symmetry Integrability and Geometry-Methods and Applications 2010 024,13

<http://www.emis.de/journals/SIGMA/>

Статья

Hidden symmetries of integrable conformal mechanical systems

Tigran Hakobyan, Armen Nersessian, Sergey Krivonos, Olaf Lechtenfeld

Physics Letters A 2010 801-806

<http://www.journals.elsevier.com/physics-letters-a>

Статья

Energy-level ordering for frustrated spin ladder models

T. Hakobyan

Physics of Atomic Nuclei 2010 339-344

Статья

Lobachevsky geometry of (super)conformal mechanics

Tigran Hakobyan, Armen Nersessian

Physics Letters A 2009 1001-1004

<http://www.journals.elsevier.com/physics-letters-a>

Статья

The cuboctahedric Higgs oscillator from the rational Calogero model

Tigran Hakobyan, Armen Nersessian, Vahagn Yeghikyan

Journal of Physics A: Mathematical and Theoretical 2009 205206, 11

<http://iopscience.iop.org/journal/0305-4470>

Статья

Cuboctahedric Higgs oscillator from the Calogero model

Armen Nersessian, Tigran Hakobyan, Vahagn Yeghikyan

Journal of Physics A-Mathematical and Theoretical 2009 205206

<http://iopscience.iop.org/journal/1751-8121>

Статья

Lobachevsky geometry of (super)conformal mechanics

Armen Nersessian, Tigran Hakobyan

Physics Letters A 2009 1001-1004

<http://www.journals.elsevier.com/physics-letters-a>

Статья

Antiferromagnetic ordering of energy levels for a spin ladder with four-spin cyclic exchange: Generalization of the Lieb-Mattis theorem

Tigran Hakobyan

Physical Review B 2008 012407,4

<http://journals.aps.org/prb/>

Статья

Energy-level ordering and ground-state quantum numbers for a frustrated two-leg spin-1 /2 ladder

Tigran Hakobyan

Physical Review B 2007 214421,14

<http://journals.aps.org/prb/>

Статья

The ordering of energy levels for su(n) symmetric antiferromagnetic chains

Tigran Hakobyan

Nuclear Physics B 2004 575-594

<http://www.journals.elsevier.com/nuclear-physics-b/>

Статья

The possibility of gapless excitations in antiferromagnetic spin chains with long-range interactions

T. Hakobyan

Journal of Physics A: Mathematical and Theoretical 2003 L599-L604

<http://iopscience.iop.org/journal/0305-4470>

Статья

Phase diagram of the frustrated two-leg ladder model

T. Hakobyan, J. H. Hetherington, M. Roger

Physical Review B 2001 144433,17

<http://journals.aps.org/prb/>

Статья

Delocalization of states in two-component superlattices with correlated disorder

T. Hakobyan, D. Sedrakyan, A. Sedrakyan, I. Gomez, F. Dominguez-Adame

Physical Review B 2000 11432-11436

<http://journals.aps.org/prb/>

Статья

Bethe Ansatz and thermodynamic limit of affine quantum group invariant extensions of the t-J model

T. Hakobyan, A. Avakyan, A. Sedrakyan, J. Ambjorn

Journal of Mathematical Physics 1999 5687-5701

<http://scitation.aip.org/content/aip/journal/jmp>

Статья

The European Physical Journal B

T. Hakobyan, V. Harutunyan, V. Gevorkyan, V. Makhov

EUROPEAN PHYSICAL JOURNAL B 1999 31-33

<http://epjb.epj.org/>

Статья

Luminescence Excitation and Influence of Radiation on the Stimulated Processes in Corundum Crystals

T. Hakobyan, V. Harutyunyan, E. Hakhverdyan, V. Gevorkyan, V. Grigoryan, V. Makhov

PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE 1999 623-629

[http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1862-6319/homepage/2231_ed...](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1862-6319/homepage/2231_ed...)

Статья

A family of affine quantum group invariant integrable extensions of the Hubbard Hamiltonian

A. Avakyan, T. Hakobyan, A. Sedrakyan

Nuclear Physics B 1997 633-652

<http://www.sciencedirect.com/science/journal/05503213>

Статья

Integrable Extensions of Hubbard Hamiltonian

T. Hakobyan, A. Sedrakyan, A. Avakyan

International Journal of Modern Physics B 1997 3207-3222

Статья

Spin chain Hamiltonians with affine U_q(g) symmetry

T. Hakobyan, A. Sedrakyan

Modern Physics Letters B 1996 250-254

<http://www.worldscientific.com/worldscinet/mplb>

Статья

On the universal R-matrix of U_q(sl₂) at roots of unity

T. Hakobyan, A. Sedrakyan

COMMUNICATIONS IN MATHEMATICAL PHYSICS 1996 157-171

<http://link.springer.com/journal/220>

Статья

Lattice electrons in constant magnetic field: Bethe like ansatz

T. Hakobyan, A. Sedrakyan

Modern Physics Letters A 1995 495-501

<http://www.worldscientific.com/worldscinet/mpla>

Статья

Universal R matrix of $Uqsl(n,m)$ quantum superalgebras

T. Hakobyan, A. Sedrakyan

Journal of Mathematical Physics 1994 2552-2559

<http://scitation.aip.org/content/aip/journal/jmp>

Статья

R-matrices for $Uqosp(1, 2)$ for highest weight representations of $U qosp(1, 2)$ for general q and q an odd root of unity

T. Hakobyan, A. Sedrakyan

Modern Physics Letters B 1993 266-271

<http://www.worldscientific.com/worldscinet/mplb>

Статья

R-matrices for highest weight representations of $slq(2,C)$ at roots of unity

T. Hakobyan, A. Sedrakyan

Modern Physics Letters B 1993 27-32

<http://www.worldscientific.com/worldscinet/mplb>

Статья

Some new spinor representations of quantum groups $Bq(n)$, $Cq(n)$, $Gq(2)$

T. Hakobyan, A. Sedrakyan

Journal of Mathematical Physics 1993 2554-2560

<http://scitation.aip.org/content/aip/journal/jmp>
