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Руководитель группы

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Руководитель группы

Институт физики
Кафедра физики конденсированного состояния
Преподаватель

Образование

Учреждение	Ереванский государственный университет
Факультет	физический фалвультет
Дата	1999 - 2008
Степень / Звание	Аспирант

Ученое звание/Ученая степень

Учреждение	Ереванский государственный университет
Дата	2008
Степень / Звание	Кандидат наук
Научный руководитель	А.А. Киракосян
Научная тема	Կիսահաղորդչային նանոկառուցվածքների էլեկտրոնային և օպտիկական հատկությունների վրա փոխադարձ դիֆուզիայի և արտաքին դաշտերի ազդեցության տեսական ուսումնասիրություն

Знание языков

Հայերեն English Русский

Опыт работы

Учреждение	Науюная грыппа моделирования и симуляций наноструктур
Период времени	2023 до настоящего времени
Звание/степень	руководитель научной группы

Учреждение	Лаборатория физики твердого тела, Ереванский государственный университет
Период времени	2022 - 2023

Звание/степень	старший научный сотрудник

Учреждение	Кафедра физики твердого тела, Ереванский государственный университет
Период времени	2016 - 2023
Звание/степень	заведующий учебной лабораторией

Учреждение	Ереванский государственный медицинский университет
Период времени	2015 - 2025
Звание/степень	преподаватель

Учреждение	Лаборатория физики твердого тела, Ереванский государственный университет
Период времени	2008 - 2022
Звание/степень	научный сотрудник

Публикации

Статья

Enhanced efficiency of intermediate-band semiconductor solar cells embedded with quantum dot superlattices

Naira Petrosyan, Lilit Yeganyan, Aram Manaselyan, Vram Mughnetsyan, Vidar Gudmundsson, Albert Kirakosyan

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Signatures of broken symmetries in the excitations of a periodic 2DEG coupled to a cylindrical photon cavity

Vidar Gudmundsson, Vram Mughnetsyan, Hsi-Sheng Goan, Jeng-Da Chai, Nzar Rauf Abdullah, Chi-Shung Tang, Wen-Hsuan Kuan, Valeriu Moldoveanu, Andrei Manolescu

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Статья

Effect of two-dimensional nonlocal screening on mobility of electrons in transition-metal dichalcogenide monolayers

Aram Manaselyan, Vram Mughnetsyan, Anna Asatryan, Albert Kirakosyan

Semiconductor Science and Technology 2026 045015

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Electronic states in a semiconductor nanobelt in the two-wave approximation

Minas Balyan, Vram Mughnetsyan, Albert Kirakosyan

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Electronic states in a bending semiconductor nanobelt within the framework of finite

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Minas Balyan, Vram Mugnetsyan, Albert Kirakosyan

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Статья

Magneto-Optical Properties of Electron Gas in a Chain of Planar Quantum Rings: Effect of Screening on the Signature of Quantum Phase Interference
Armen Harutyunyan, Vram Mughnetsyan, Albert Kirakosyan, Vidar Gudmundsson

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Статья

Spin configuration of an array of quantum rings controlled by cavity photons
Vidar Gudmundsson, Vram Mughnetsyan, Hsi-Sheng Goan, Jeng-Da Chai, Nzar Rauf Abdullah,

Chi-Shung Tang, Valeriu Moldoveanu, Andrei Manolescu

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Статья

Effect of two-dimensional non-local screening on characteristics of transition metal dichalcogenide monolayers
Vram Mughnetsyan, Aram Manaselyan, Ashot Movsisyan, Albert Kirakosyan

Semiconductor Science and Technology 2024 045016

Статья

Planar quantum dots: Theoretical approaches
Aram Manaselyan, Vram Mughnetsyan, Albert Kirakosyan

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Magnetic Properties of A Cavity-Embedded Square Lattice of Quantum Dots or Antidots
Vram Mughnetsyan, Vidar Gudmundsson, Nzar Rauf Abdullah, Chi-Shung Tang, Valeriu Moldoveanu,

Andrei Manolescu

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Статья

Magneto-optical properties of a quantum dot array interacting with a far-infrared photon mode of a cylindrical cavity
Vidar Gudmundsson, Vram Mughnetsyan, Hsi-Sheng Goan, Jeng-Da Chai, Nzar Rauf Abdullah,

Chi-Shung Tang, Valeriu Moldoveanu, Andrei Manolescu

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Статья

MAGNETO-OPTICAL PROPERTIES OF ARRAYED STRUCTURES OF CYLINDRICAL AND ELLIPTICAL QUANTUM DOTS
Lilit YEGANYAN, Vram MUGHNETSYAN, Maryam MANSOURY

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Tuning of paramagnetic and diamagnetic cavity photon excitations in a square array of quantum dots in a magnetic field

Vram Mughnetsyan, Vidar Gudmundsson, Hsi-Sheng Goan, Jeng-Da Chai, Nzar Rauf Abdullah,

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Vidar Gudmundsson, Vram Mughnetsyan, Nzar Rauf Abdullah, Chi-Shung Tang, Valeriu Moldoveanu,

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Hofstadter-like spectrum and magnetization of artificial graphene constructed with cylindrical and elliptical quantum dots
Maryam Mansoury, Vram Mughnetsyan, Aram Manaselyan, Albert Kirakosyan, Vidar Gudmundsson,

Vigen Aziz-Aghchegala

Physics Letters A 2023 129115

Конференция

Magneto-optical properties of arrayed structures of quantum dots and rings
Yeganyan Lilit, Mughnetsyan Vram, Mansoury Maryam

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YEGANYAN Lilit, MUGHNETSYAN Vram, MANSOURY Maryam, KIRAKOSYAN Albert, GUDMUNDSSON Vidar

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Unified approach to cyclotron and plasmon resonances in a periodic two-dimensional GaAs electron gas hosting the Hofstadter butterfly
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Electron–hole interaction in cylindrical quantum dots
Vram Mughnetsyan, Ashot Movsisyan, Albert Kirakosyan

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Effects of a far-infrared photon cavity field on the magnetization of a square quantum dot array
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Electronic and Magnetic Properties of Laser Dressed Quantum Dot and Ring with Rashba Spin-Orbit Coupling
Vram Mughnetsyan, Aram Manaselyan, Manuk Barseghyan, Albert Kirakosyan, Laura M. Perez, David Laroze
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Control of electronic and optical properties of a laser dressed double quantum dot molecule by lateral electric field
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Tuning of energy gap and 1D Dirac-like points in artificial graphene and boron nitride monolayer by an external electric field
Vram Mughnetsyan
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Effect of anisotropic strain on the electronic characteristics of an InAs/GaAs honeycomb superlattice
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Effect of the impurity on the Aharonov-Bohm oscillations and the intraband absorption in GaAs/ Ga1− xAlxAs quantum ring under intense THz laser field
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Rashba splitting of Dirac points and symmetry breaking in strained artificial graphene

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Статья

Effect of interdiffusion and external magnetic field on electronic states and light absorption in Gaussian-shaped double quantum ring

V.L. Aziz Aghchegala, V.N. Mughnetsyan, A.A. Kirakosyan

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EFFECT OF DONOR IMPURITY ON AHARONOV–BOHM OSCILLATIONS IN A DOUBLE QUANTUM RING WITH GAUSSIAN CONFINEMENT

V. N. MUGHNETSYAN

Proceedings of the YSU A Physical and Mathematical Sciences 2018 205-212

Статья

Effect of interdiffusion and magnetic field on two-electron states in Gaussian-shaped double quantum rings

V.L. Aziz Aghchegala, V.N. Mughnetsyan, A.A. Kirakosyan

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Effect of Rashba spin-orbit coupling and external magnetic field on electronic minibands in highly strained one-layer quantum ring superlattice

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Strain distribution and band structure of InAs/GaAs quantum ring superlattice

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Rashba Spin-Orbit Coupling in a Two-Dimensional Quantum Ring Superlattice

V. Mughnetsyan, A. Manaselyan, A. Kirakosyan

Micro and Nanostructures (Previously known as Superlattices and Microstructures) 2015 584-591

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Electron capture processes in quantum dots due to one-and two-phonon assisted transitions: The role of optical phonon confinement

A L Vartanian, K A Vardanyan, V N Mughnetsyan, A A Kirakosyan

Journal of Physics Conference Series 2015 012017/4pp

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Effect of phonon confinement on one- and two-polar optical phonon capture processes in quantum dots
K.A. Vardanyan, A.L. Vartanian, V.N. Mughnetsyan, A.A.Kirakosyan

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Effect of interdiffusion on electronic states of strain-free Gaussian-shaped double quantum ring superlattice
V.L. Aziz Aghchegala, V.N. Mughnetsyan, A.A. Kirakosyan

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Effect of interdiffusion on nonlinear intraband light absorption in Gaussian-shaped double quantum rings
V.L. Aziz Aghchegala, V.N. Mughnetsyan, A.A. Kirakosyan

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Статья

Effect of interdiffusion on band structure in GaAs/Ga1-xAlxAs quantum ring superlattices
V. Mughnetsyan, A. Kirakosyan, A. Manaselyan

6-th International Conference on Nanomaterials, NANOCON-2014, Conference Proceedings 2015 47-53

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Конференция

Elastic Strain Distribution in one layer InAs/GaAs Quantum Ring Superlattice.
V.N. Mughnetsyan, A.A. Kirakosyan

2015 59-60

http://www.dom-events.org/

Конференция

Electron capture processes in quantum dots due to one- and two-phonon assisted transitions: The role of optical phonon confinement.
A.L. Vartanian, K.A. Vardanyan, V.N. Mughnetsyan, A.A. Kirakosyan

2015 42-42

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