

# Gor Hrachik Nikoghosyan

## Research Institute of Physics

International Center for Advanced Studies

Researcher

☎ 23-47

✉ nikoghosyan@ysu.am



## Education

---

<b>Institution</b>	YSU
<b>Faculty</b>	Physics
<b>Date</b>	2018 - 2021
<b>Degree name</b>	PhD student

---

<b>Institution</b>	YSU
<b>Faculty</b>	Physics
<b>Date</b>	2016 - 2018
<b>Degree name</b>	Masters

---

<b>Institution</b>	YSU
<b>Faculty</b>	Physics
<b>Date</b>	2012 - 2016
<b>Degree name</b>	Bachelor

---

## Scientific Rank/degree

---

<b>Institution</b>	A.I. Alikhanyan National Science Laboratory (Yerevan Physics Institute)
<b>Date</b>	2021
<b>Degree name</b>	Candidate
<b>Specialty</b>	Physico-mathematical sciences
<b>Scientific Supervisor</b>	Elena Kolganova
<b>Research Topic</b>	Isovector and isoscalar pair correlations of nucleons and their influence on the structure of atomic nuclei

---

## Language skills

---

Հայերեն Русский English

---

## Scientific interests

- 
- Quantum theory of finite fermi-systems
  - Exact solutions in nuclear physics
  - Collective models of nuclei
-

*Article*

**Unipolar optical transitions in nanoclusters of ellipsoidal geometry**

G. Nikoghosyan, H. S. Nikoghosyan

Physica B: Condensed Matter 2024 415921

---

*Article*

**Fermionic vacuum stresses in models with toroidal compact dimensions**

A. A. Saharian, R. M. Avagyan, G. H. Harutyunyan, G. H. Nikoghosyan

Астрофизика (Astrophysics) 2024 231-245

---

*Article*

**Adiabatic inversion in an array of spherical microcrystals under conditions of the Stark effect**

G. Nikoghosyan, H.S. Nikoghosyan, E.A. Mughnetsyan

Physica B: Condensed Matter 2023 414419

---

*Article*

**Spontaneous (two-pulse) photon echo in the nanoscale structure of self-organized quantum dots**

G. Nikoghosyan, H.S. Nikoghosyan

Physica B: Condensed Matter 2023 415092

---

*Article*

**Collective alpha-mode in the structure of heavy and superheavy nuclei**

G. Nikoghosyan, R.V. Jolos, E.A. Kolganova

International journal of Modern physics E 2023 2350042

---

*Article*

**Superlattice of spherical quantum dots with a trapezoidal potential profile with weak coupling of quasiparticles between layers of quantum dots**

G. Nikoghosyan, H.S. Nikoghosyan

Physica B: Condensed Matter 2022 413574

---

*Article*

**Optical resonance in the inversion n-channel of a silicon MOS structure**

G. Nikoghosyan, H.S. Nikoghosyan, H.G. Demirchian

Physica B: Condensed Matter 2022 414018

---

*Article*

**Coherent brightening of a multilayer MQW- structure taking into account resonant tunneling for ultra-short IR pulses in a transverse electric field**

G. Nikoghosyan, H.S. Nikoghosyan

Physica E: Low-dimensional Systems and Nanostructures 2022 115377

---

*Article*

**«Կոհերենտ թափանցիկացում», կամ ինչպես է լույսը ուղի հարթում ատոմների միջավայրում**  
Գոռ Նիկողոսյան, Հրաչիկ Նիկողոսյան

Գիտության աշխարհում 2022 34-42

---

*Article*

**Fano resonance model for the processes of photoionization of two-well heterostructures in a transverse electric field**

G. Nikoghosyan, H. S. Nikoghosyan, V. F. Manukyan, S. L. Harutyunyan

Physica E: Low-dimensional Systems and Nanostructures 2021 114587

---

*Article*

**Isovector pair correlations in analytically solvable models**

A. Balabekyan, G. Nikoghosyan, E. A. Kolganova, R. V. Jolos, D. A. Sazonov

International journal of Modern physics E 2020 2050091

---

*Article*

**Isovector Pair Correlations of Nucleons in Nuclei**

G. Nikoghosyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 284–291

---

*Article*

**Non-Monotone Dispersion of Carriers in Size-Quantized Nanostructures with Violated Symmetries**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 345 - 353

---

*Article*

**Collective treatment of the isovector pair correlations: Boson representation**

G. Nikoghosyan, E. A. Kolganova, D. A. Sazonov, R. V. Jolos

European Physical Journal A 2019 189-198

---

*Article*

**Effect of Self-Induced Transparency in a Massive of Spherical Quantum Dots Under the Conditions of Strong Dimensional Quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, V. F. Manukyan, S. L. Harutyunyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 272–281

---

*Article*

**Quantum Model of a Trapezoidal Limiting Potential Profile in a Spherical Nanocrystal**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 345–350

---

*Article*

**Coherent bleaching of the medium with Raman scattering under conditions of strong size quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, S. L. Harutyunyan, V. F. Manukyan

Physica B: Condensed Matter 2019 411710

---

*Article*

**The phenomenon of nonstationary nutation in the system of two-level quantum wells of a periodic superlattice with strong magnetic quantization**

G. H. Nikoghosyan, H. S. Nikoghosyan, V F Manukyan

Journal of Physics: Conference Series 2019 055004

---

*Article*

**Isvector and Isoscalar pair correlations in boson representation technique**

G. Nikoghosyan, E. A. Kolganova, R. V. Jolos

Bulgarian Journal of Physics 2017 443-453

---

*Conference*

**Адиабатическая инверсия в массиве сферических микрокристаллов в условиях штарк-эффекта**

Никогосян Г.Г., Никогосян Г.С., Мугнецян Э.А.

---