

# Artak Ara Avetisyan

**Research Institute of Physics**  
Laboratory of Solid State Physics  
Senior researcher

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## Education

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Physics
<b>Date</b>	1997 - 2000
<b>Degree name</b>	PhD student

<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Physics
<b>Date</b>	1992 - 1997
<b>Degree name</b>	Qualified specialist

## Scientific Rank/degree

<b>Institution</b>	Yerevan State University
<b>Date</b>	2000
<b>Degree name</b>	Candidate
<b>Specialty</b>	Physico-mathematical sciences
<b>Scientific Supervisor</b>	Kazaryan Eduard Mushegh
<b>Research Topic</b>	The influence of nonparabolicity on impurity states

## Language skills

Հայերեն Russian English Ελληνικά Deutsch

## Work experience

<b>Institution</b>	Yerevan State University
<b>Period of time</b>	2010 till now
<b>Rank/degree</b>	Senior Researcher

<b>Institution</b>	Antwerp University
<b>Period of time</b>	2008 - 2010
<b>Rank/degree</b>	researcher

**Institution** Yerevan State University

**Period of time** 2005 - 2008

**Rank/degree** researcher

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**Institution** Cyprus University

**Period of time** 2003 - 2005

**Rank/degree** researcher

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**Institution** Yerevan State University

**Period of time** 2002 - 2003

**Rank/degree** researcher

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**Institution** Bremen University

**Period of time** 2001 - 2002

**Rank/degree** researcher

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**Institution** Yerevan State University

**Period of time** 1998 - 2001

**Rank/degree** researcher

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## **Scientific interests**

- Physics of condensed matter

## **Participation in international conferences and seminars**

**15/09/2023 -** laser physics

**20/09/2023** IRF

Armenia

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## **Other information**

Graduated from Yerevan State University in 1997.

## **Publications**

### *Article*

**Optical Transitions 1S-2Px between Lowest States of a Shallow Impurity in Graphene**

**Monolayer [Оптические переходы 1S-2Px между уровнями мелкой примеси в монослоином графене]**

A. P. Djotyan, A. A. Avetisyan

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

165-171

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*Article*

**Hydrogen-Like Impurity States in Doped Bilayer Graphene: Results for Different Trial Functions [Водороподобные примесные состояния в легированном двухслойном графене: результаты для различных пробных функций]**

A.A. Avetisyan, K. Moulopoulos, A.P. Djotyan

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

265 - 271

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*Article*

**Coherent Control of Lowest States of a Shallow Impurity in Graphene Monolayer by Phase Modulated Laser Pulses [Когерентный контроль наименьших уровней мелкой примеси в монослоином графене с помощью модулированных по фазе лазерных импульсов]**

A. P. Djotyan, G. P. Djotyan, A. A. Avetisyan

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

272 - 278

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*Article*

**Coulomb Interaction in Graphene Systems**

A. A. Avetisyan, A. P. Djotyan

Physics of Particles and Nuclei 2023 997-1001

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*Article*

**Impurity states in gated graphene systems in a magnetic field**

A. A. Avetisyan, A. P. Djotyan

International Conference on Microwave & THz Technologies, Wireless Communications and

OptoElectronics (IRPhE 2022)

2023 46-48

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*Article*

**Interaction of Electromagnetic Field with Gated Graphene Bilayer**

A. P. Djotyan, A. A. Avetisyan, K. Moulopoulos

Armenian Journal of Physics 2019 33-39

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*Article*

**Impurity States in Gated Graphene Bilayer in a Magnetic Field**

A.A. Avetisyan, A.P. Djotyan

Armenian Journal of Physics 2019 248-253

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*Article*

**Tunable Excitons in Bilayer Graphene with Opened Energy Gap**

A. A. Avetisyan, A. P. Djotyan, K. Moulopoulos

Physics of Atomic Nuclei 2018 799-803

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*Article*

**Nonlinear Properties of Gated Graphene in a Strong Electromagnetic Field**

A.P. Djotyan, A.A. Avetisyan, K. Moulopoulos

Physics of Atomic Nuclei 2017 307-314

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

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*Article*

## **EXCITONIC ABSORPTION IN GAPPED GRAPHENE SYSTEMS**

A.P.Djotyan, A.A.Avetyan

Proceedings of the YSU A. Physical and Mathematical Sciences 2017 93-96

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

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### *Article*

#### **Tunable excitons in gated graphene systems**

A.A. Avetyan, A.A.Djotyan, K.Moulopoulos

Proceedings of SPIE-Progress in Biomedical Optics and Imaging 2017 1-11

<http://spie.org/publications/conference-proceedings>

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### *Conference*

#### **COHERENT RESPONSE OF MULTILAYER GRAPHENE SYSTEMS TO LASER RADIATION:**

#### **NONLINEAR EFFECTS AND MANY ELECTRON CORRELATIONS**

Artak Avetyan, Djotyan Anahit

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### *Conference*

#### **Nonlinear optical properties of gated graphene systems**

Artak Avetyan, Djotyan Anahit

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### *Conference*

#### **Excitonic absorption in gated graphene systems**

Artak A. Avetyan, Anahit P. Djotyan, Konstantinos Moulopoulos

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### *Conference*

#### **Tunable excitonic absorption in gapped graphene systems**

A. Avetyan, A. Djotyan, K. Moulopoulos

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### *Conference*

#### **Nonlinear response and tunable excitonic absorption in gapped graphene systems**

Konstantinos Moulopoulos, Artak A. Avetyan, Anahit P. Djotyan

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