

# Curriculum Vitae

## Personal information

First name(s) / Surname(s) **Volodya Harutyunyan**  
Address(es) 60, Kurghinyan st., 3108 Gyumri, Republic of Armenia.  
Telephone(s) (+374) 312 4-50-78 home Mobile: (+374) 93-302-444  
E-mail [volhar@mail.ru](mailto:volhar@mail.ru), [volharut@gmail.com](mailto:volharut@gmail.com)  
Nationality Armenian  
Date of birth 17.06.1949



## Work experience

Dates September 2012 onwards  
Occupation or position held Associate – Professor  
Name and address of employer Russian – Armenian (Slavonic) University, 123 Hovsep Emin Str., 0051  
Dates April 2000 – January 2013  
Occupation or position held Vice-director  
Name and address of employer State Engineering University of Armenia, Gyumri Branch,  
2, M.Mkrtchyan st., 3103 Gyumri, Armenia  
Type of business or sector Higher education  
Dates September 1992-April 2000  
Occupation or position held Professor  
Name and address of employer Physics department, State Engineering University of Armenia, Gyumri Branch,  
2, M.Mkrtchyan st., 3103 Gyumri, Armenia  
Type of business or sector Higher education  
Dates September 1972 - September 1992  
Occupation or position held Assistant Professor (1972-1987), Associate Professor (1987-1992)  
Name and address of employer Physics Department, Vanadzor State Pedagogical Institute,  
36 Tigran Mets street, Vanadzor, Armenia  
Type of business or sector Higher education

## Education and training

Dates 1999  
Title of qualification awarded Doctor of Sciences (Physics)  
Name and type of organisation providing education and training Institute of Applied Problems of Physics, National Academy of Sciences of Armenia,  
Yerevan, Armenia  
Dates 1985  
Title of qualification awarded Ph.D. (Physics)  
Name and type of organisation providing education and training Azerbaijan State University, Baku, Azerbaijan SSR  
Dates 1966-1972  
Title of qualification awarded Diploma  
Name and type of organisation providing education and training Yerevan State University, Physics Department  
Yerevan, Armenia

**Personal skills and competences**

Mother tongue(s)

**Armenian**

Other language(s)

Self-assessment

*European level (\*)***Russian****English**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
A2	Basic user	B1	Independent user	A1	Basic user	A1	Basic user	B1	Independent user

**Publications:**

More than 70 scientific and 5  
methodical publications

Organisational skills and competences

Supervising and coordinating university's study process for more then 10 years

Publications: 70 publications

MAIN PUBLICATIONS in LAST TEN YEARS (2002-2013)  
(V.A.Harutyunyan, or V.A.Arutyunyan,)

1. V.A.Harutyunyan, E.M.Kazaryan, H.A.Sarkisyan, Optical absorption in a narrow-gap InSb cylindrical layered nanowire in the presence of strong electrostatic field,  
**Journal of Contemporary Physics (Armenien Academy of Sciences)**, v.46, No.6, pp. 285-292, 2011  
(Russian version: *Izvestiya NAN Armenii*, v. .46, No.6, pp. 440 - 450, 2011).
2. V.A.Harutyunyan, Semiconductor nanotube in strong electrostatic field,  
**Journal of Applied Physics**, v.109, No 1, pp.014325-1 - 014325-8, 2011.
3. V.A.Harutyunyan, G.H.Demirian, N.H.Gasparyan, Semiconductor nanotube in strong radial electrostatic field: spectrum of carriers and interband transitions,  
**Physica E: Low – dimensional systems and nanostructures**, v.42, No2, pp.614 - 619, 2010.
4. V.A.Harutyunyan, Semiconductor nanocylindrical layer in a strong electric field: spectrum of carriers and intraband transitions  
**Physics of the Solid State**, v.52, No.8, pp. 1744 -1749, 2010 (Russian version: *Fizika Tverdogo Tela*, v.52, No.8, pp.1621-1626, 2010).
5. V.A.Harutyunyan, Semiconductor nanocylindrical heterolayer in a radial electrostatic field: electronic spectrum and optical properties,  
**Applied Surface Science**, v.256, No. 2, pp. 455 - 459, 2009.
6. V.A.Harutyunyan, Cylindrical nanolayer in the strong uniform electrical field: the localization of carriers and electrooptical transitions,  
**Physica E: Low – dimensional systems and nanostructures**, v.41, No2, pp.695 -700, 2009.
7. V.A.Harutyunyan, S.L.Harutyunyan, G.H.Demirian, N.H.Gasparyan, Optical absorption in a semiconductor cylindrical nanolayer,  
**Journal of Contemporary Physics (Armenien Academy of Sciences)**, v.43, No.5, pp. 218 -225, 2008  
(Russian version: *Izvestiya NAN Armenii*, v. .43, No.5, pp. 336 -347, 2008).

8. V.A.Harutyunyan, Optical transitions in semiconductor nanospherical layer under the presence of perturbing electrical field,  
**Physica E: Low – dimensional systems and nanostructures**, v.39, No1, pp.37- 49, 2007.
9. V.A.Harutyunyan, E.M.Kazaryan, A.A.Kostanyan, H.A.Sarkisyan, Interband transitions in cylindrical layer quantum dot: influence of magnetic and electrical field,  
**Physica E: Low – dimensional systems and nanostructures**, v.36, pp. 114 - 118, 2007.
10. V.A.Harutyunyan, H.Sh.Petrosyan, Influence of homogeneous electric field on the exciton states in a quantized wire,  
**Proceedings of National Academy of Sciences of Armenia, Physics ( in Russian:Izvestiya NAN Armenii)**, v.40, No.2, pp.125 - 130, 2005.
11. V.A.Arutyunyan, S.L.Arutyunyan, G.O.Demirchyan,G.Sh.Petrosyan, Optical transitions in a quantized cylindrical layer in the presence of a homogeneous electric field,  
**Semiconductors**, v.39, No.7 ,pp. 805 - 810, 2005 (Russian version: **Fizika i Tekhnika Poluprovodnikov**, v.39, No.7, pp.839 - 843, 2005).
12. V.A.Harutyunyan, K.S.Aramyan, H.Sh.Petrosyan, Innerband optical transitions in a semiconductor nanospherical layer,  
**Proceedings of National Academy of Sciences of Armenia, Physics ( in Russian:Izvestiya NAN Armenii)**, v.39, No.3, pp.166 -172, 2004).
13. V.A.Harutyunyan, K.S.Aramyan, H.Sh.Petrosyan, G.H.Demirjian, Optical transitions in spherical quantized layer under the presence of radial electrical field,  
**Physica E: Low – dimensional systems and nanostructures**, v.24, No3 - 4, pp.173 - 177, 2004.
14. V.A.Haroutyunian, Interband optical absorption in a small-radius quantized spherical film,  
**Thin Solid Films**, v.446, pp.258 - 263, 2004.
15. V.A.Harutyunyan, K.S.Aramyan, H.Sh.Petrosyan , Confinement Stark effect and electroabsorption in semiconductor cylindrical layer,  
**Physica E: Low – dimensional systems and nanostructures**, v.21, No3 - 4, pp.111-116, 2004.
16. V.A.Arutyunyan, K.S.Aramyan, H.Sh.Petrosyan, Quantum confinement Stark effect and electroabsorption in semiconductor spherical layers,  
**Semiconductors**, v.38, No.4, pp. 335 - 339, 2004 (Russian version: **Fizika i Tekhnika Poluprovodnikov**, v.39, No.7, pp.349 - 353, 2004).
17. V.A.Arutyunyan, Quantum-confined Stark effect and intraband transitions in a semiconductor spherical layer,  
**Physics of the Solid State**, v.45, No.7, pp. 1342 - 1346, 2003 (Russian version: **Fizika Tverdogo Tela**, v.45, No.7, pp.1280 - 1283, 2003).
18. V.A.Haroutyunian, H.G.Sultanian, Quantum-size stark effect in a semiconductor cylindrical layer,  
**Proceedings of National Academy of Sciences of Armenia, Physics ( in Russian:Izvestiya NAN Armenii)**, v.38, No.1, pp.36 - 42, 2003).
19. V.A.Haroutyunian, H.G.Sultanian, Quantum-size stark effect in a semiconductor spherical layer,  
**Proceedings of National Academy of Sciences of Armenia, Physics ( in Russian:Izvestiya NAN Armenii)**, v.37, No.4, pp.237 - 243, 2002).
20. V.A.Arutyunyan, Effect of a radial electric field on absorption in a quantized spherical layer,  
**Semiconductors**, v.36, No.4, pp. 379 - 381, 2002 (Russian version: **Fizika i Tekhnika Poluprovodnikov**, v.36, No.4, pp.401 - 403, 2002).
21. В.А.Арутюнян, Электрооптические переходы в полупроводниковом наноцилиндрическом слое,

## **Физика Твёрдого Тела, 54, No.5. 1028-1034 (2012)**

22. V. A. Harutyunyan, V.A. Gasparyan, Effect of radial electrostatic field on optical absorption in semiconductor tubular heterolayer,

**Journal of Physics: Conference Series v.350, pp. 012019-1-012019-7, 2012**

23. V.A. Harutyunyan, Nanospherical heterolayer in strong electrostatic field,

**Journal of Applied Nanoscience, v.2, N3, p.p.339-344, 2012;**

**DOI 10.1007/s13204- 012-0087-7**

24. V. A.Harutyunyan, V.A.Gasparyan, Analytical Consideration Of Quantum-Confined Stark-Effect and Interband Optical Transitions in Semiconductor Quantum Well ,

**Micro and Nanosystems, V. 5, Iss 1, pp.61-69, 2013 ,ISSN: 1876-4029**

25. В.А. Арутюнян, В.А.Гаспарян, Э.М. Казарян, А.А.Саркисян, Электронные и дырочные состояния в узкозонной полупроводниковой пленке InSb в присутствии однородного электростатического поля,

**Изв. НАН РА, серия ФИЗИКА т.48, N4, с. 251-265, 2013.**

26. V. A. Harutyunyan, V.A. Gasparyan, Interband electrooptical transitions in InSb quantum well,

**Physica E (2013), <http://dx.doi.org/10.1016/j.physe.2013.04.008>**

### PARTICIPATION in INTERNATIONAL CONFERENCES (2003-2012)

1. В. А. Арутюнян, Электронные состояния в наносферическом пленочном слое при наличии кулоновского примесного центра  
**Материалы Международной конференции «Тонкие пленки и наноструктуры», ч. I, с.69-71, Москва, 2004.**
2. В. А. Арутюнян, Оптические переходы в наносферическом пленочном слое при наличии кулоновского примесного центра,  
**Материалы Международной конференции «Тонкие пленки и наноструктуры», ч. I, с. 88-90, Москва, 2004.**
3. V.A. Harutyunyan, Electronic states in nanoradial cylindrical layer with quantum well of finite depth  
**Reviews and Short Notes to Nanomeeting-2005, p.216-218, Minsk, 2005**
4. V.A.Harutyunyan, Optical properties of CdS/HgS/CdS nanospherical direct band semiconductor layer,  
**Proceedings of the International Conferen-ce «Electronoc and Photonic Materials, Devices and Systems», p.D7-D9, Calcutta, India, 2006**
5. V.A.Harutyunyan, Optical Transitions in Cylindrical Nanolayer in the Presence of Radial Electric field  
**Proceedings of the XXVI International Conference«Solid State Physics and Material Science», p.72-73, Alexandria, Egypt, 2006**
6. V.A. Harutyunyan, Intersubband optical Transitions in Cylindrical Nanolayer in the Presence of Radial Electric field  
**Proceedings of Ninth International Conference On Intersubband Transitions in Quantum Wells, p.22-23, Cumbria, Ambleside UK, 2007**
7. В.А.Арутюнян, Экситонные состояния в полупроводниковой нанотрубке при наличии сильного электрического поля  
**Труды XII Международной конференции “Опто- и нанoeлектроника, нанотехнологии и микросистемы”, с.69-70,Ульяновск, 2010**

8. V.A.Harutyunyan, Electrooptical properties of spherical symmetric nanocrystalline layer in the presence of radial electric field  
**Bulleten of APS v.48, N1, part I, p.504, Austin TX, USA, March -2003**
9. V.A.Harutyunyan, The influence of uniform electrical field on the optical properties of size-quantized cylindrical semiconductor layer,  
**Symposium «Nano and Giga challenges in Microelectronics», p.114, Cracow, Poland, 2004**
10. V.A.Harutyunyan, Optical transitions in spherical nanocrystalline layer in the presence of homogeneous electrical field  
**Bulleten of APS March Meeting 2005, Abstract, NK1.0009, Los-Angeles, CA, USA 2005**
11. V.A.Harutyunyan, Optical transitions in semiconductor nanotube under strong electrostatic field  
**Proceedings of Ninth International Conference on the Science and Application of Nanotubes NT-08, p.378, Montpellier, France , 2008**
12. V.A.Harutyunyan, Semiconductor nanocylindrical heterolayer in a radial electrostatic field: the electronic spectrum and optical properties  
**Proceedings of 2-nd International Conference of Surface and Interfaces, p.97, Puri, India, 2009**
13. V.A.Harutyunyan, Semiconductor quantum ring in strong lateral electrostatic field  
**Conference on Theoretical Physics 2011, Moscow, Russia, 20-23 of june, Book of Abstracts, p.22**
14. V.A.Harutyunyan, Nanospherical heterolayer in strong electrostatic field  
**2nd International Conference on 'Advanced Nanomaterials and Nanotechnology (ICANN-2011)' 8-10 Dec. 2011, Guwahati, India, Book of Abstracts, p.75.**
15. V.A.Harutyunyan, V.A. Gasparyan, Analytical consideration of quantum-confined stark-effect and intersubband optical transitions in semiconductor quantum well,  
**Proceedings of 2-nd International Conference of Theoretical Physics and its Applications, Moscow, Russia (2012), pp. 47-56.**