

Curriculum Vitae

I. Personal

- Last Name: **Namiranian**
- First Name: **Afshin**
- Date of Birth: 04.10.1969 (12/Mehr/1348)
- Place of birth: Tehran, IRAN
- Nationality: Iranian
- Marital status: Married, having two children

II. Current Position

- Associate Professor, Department of Physics, Iran University of Science & Technology (IUST), Tehran, IRAN.
- Associate Researcher, Department of Nano-science, Institute for Research in Fundamental Sciences (IPM), Tehran, IRAN.

III. Address

- Department of Physics, Iran University of Science & Technology, Tehran, P.O.Box: 16345, IRAN.
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IV. Education

- BSc in Physics: Sharif University of Technology, 1987-92.
- MSc in Physics: Institute for Advanced Studies for Basic Sciences (IASBS), 1992-95.

Thesis Title: Thermodynamical potential for ananyon gas” under supervision of Prof. Siavosh Azakov.

- Ph.D in Physics: IASBS, 1995- 2000.

Thesis Title: Nonlinear conductance in quantum point contacts” under supervision of Prof. Yuriy A. Kolesnichenko.

V. Research Interests

- Quantum effects in nanoscopic and Mesoscopic systems.
- Electron-imperfectness interaction in quantum wires, quantum point contacts & carbon nanostructures.

VI. International Journal Publication

1. Electronic features induced by Stone-Wales defects in zigzag and chiral carbon nanotubes

P. Partovi-Azar, S. Panahian Jand, A. Namiranian and H. Rafii-Tabar, Computational Materials Science 79 (2013) 82.

2. The Estimation of current and differential conductance of armchair single-wall carbon nanotubes via dissipative energy method

P. Ayria, and A. Namiranian, European. Physics. Journal. B 86 (2013) 4.

3. Stone-Wales defects can cause a metal-semiconductor transition in carbon nanotubes depending on their orientation

P. Partvi-Azar, and A. Namiranian, J. Phys.: Condens. Matter 243 (2012) 035301.

4. Spectroscopy of phonon modes of a single-wall armchair carbon nanotube using measurements of nonlinear conductance: Theory

P. Ayria, and A. Namiranian, Scientia Iranica F 18 (2011) 1609.

5. Spin-polarized transport in zigzag graphene nanoribbons with Rashba spin-orbit interactions.

M. Kariminezhad, and A. Namiranian, J. Appl. Phys. Solid State Communications 110 (2011) 103702.

6. Effect of magnetic impurities on spin-polarized transport in armchair single-wall carbon nanotubes

M. Kariminezhad, M. Kavand, and A. Namiranian, Physica E 43 (2010) 97.

7. Effect of single magnetic atom on spin-polarized transport of armchair grapheme nanoribbons.

M. Kavand, M. Kariminezhad, and A. Namiranian, Solid State Communications 150 (2010) 1537.

8. Nonlinear conductance reveals positions of carbon atoms in metallic single-wall carbon nanotubes.

P. Partovi-Azar & A. Namiranian; Eur. Phys. J. B72 (2009) 89.

9. Nonlinear conductance in finite-length armchair single-wall carbon nanotubes with one single impurity.

P. Partovi-Azar & A. Namiranian; J. Phys.: Condens. Matter 20 (2008) 135213.

10. Ground state study of simple atoms within a nanoscale box

M. Neek-Amal, G. Tayebirad, M. Molayem, M.E. Fouladvand, L. Esmaeili-Sereshki & A. Namiranian; Solid State Communication 145 (2008) 594

11. Effects of structure and quantum interference on the differential conductance of infinite metallic Single wall carbon nanotube.

M. Bagheri & A. Namiranian; J. Phys.: Condens. Matter 19 (2007) 096207

12. Voltage-dependent conductance and shot noise in quantum microconstrictions with single defects,

Ye.S. Avotina, A. Namiranian & Yu.A.Kolesnichenko; Physical Review B70 (2004) 075308.

13. Nonlinear conductance of a quantum microconstriction with single slow two-level system,

A.Namiranian, Ye.S.Avotina & Yu.A.Kolesnichenko; Physical Review B70 (2004) 073308.

14. Quantum interference effect in the nonlinear conductance of metallic single-wall nanotubes,

A.Namiranian; Physical Review B70 (2004) 073402.

15. Conductance of metallic single-wall nanotube with single magnetic impurities,

A.Namiranian & S.Jaffarzadeh; Physica E 22 (2004) 833.

16. Conductivity of two dimensional curved microconstriction,

A. Namiranian, M.R.H. Khajepour, Yu.A.Kolesnichenko & S.N.Shevchenko: Physica E 10 (2001) 549.

17. Tunneling in HTSC,

Yu.M.Shukrinov, A. Namiranian & A. Najafi; Low. Temp. Phys. 27 (2001) 10 [Fiz. Nizk. Temp. 27 (2001) 15]

18. Effect of quantum interference in the nonlinear conductance of metallic microconstrictions,

A.Namiranian, Yu.A.Kolesnichenko & A.N.Omelyanchouk; Physical Review B 61 (2000) 16796.

19. The influence of single magnetic impurities on the conductance of quantum microconstriction,

A.Namiranian, Yu.A.Kolesnichenko & A.N.Omelyanchouk; Low. Temp. Phys. 26 (2000) 508 [Fiz.Nizk. Temp. 26 (2000) 694].

20. Quantum conductance of ballistic microconstrictions in metals with an open Fermi surface,

A.Namiranian & Yu.A.Kolesnichenko; Low. Temp. Phys. 26 (2001) 513 [Fiz.Nizk. Temp. 26 (2000) 700].

VII. International Conference Attendance

1. International workshop on carbon-based spintronics (cspin11), Dresden, Japan, 24-28 October 2011.
2. 6th International Conference on the Physics and Applications of Spin Related Phenomena in Semiconductors (PASPS-VI), Tokyo, Japan, 1-4 August 2010.
3. 32nd International Conference of Theoretical Physics: Coherence & Correlations in Nanosystems, Ustron, Poland, 5-10 September, 2008.
4. International Conference on Theoretical Physics: Dubna – Nano 2008, Dubna, Russia, 7-11 July, 2008.
5. Interaction & Interference in Nanoscopic Transport, Dresden, 18-22 February, 2008.
6. College on Physics of Nano-devices, ICTP, Trieste, Italy, 10-21 July, 2006.
7. 1st Iran-Russia joint seminar & workshops on Nanotechnology, Tehran, Iran, 28-30 May, 2005.
8. 28th international Conference on strongly correlated systems, Ustron, Poland, 3-10 September, 2004.
9. Minisymposium on Correlation in Mesoscopic Systems, ICTP, Trieste, Italy, 1-4 August 2000.
10. First Regional conference on Magnetic and Superconducting Materials, Sharif Univ. of Tech. Tehran, Iran, 28 September 1999.
11. Tenth Workshop on Open Problems on Strongly Correlated Electron Systems, ICTP, Trieste, Italy, 18-30 July, 1998 .

VIII. Notables

1. First Rank in Nation-wide Entry Exam to B.Sc in Physics, 1987.
2. Visiting student, Institut für Angewandte Physik, Eberhard Karls Universität, Tübingen, Germany, July – November 2000.
3. Visiting scientist, B. Verkin Institute for Low Temperature Physics, Kharkov, Ukraine, July-August 2003.

4. Invited speaker of Annual Physics Conference, Yasuj, 2007.
5. Member of scientific committee of Iran annual physics conference, Kashan, 2008.
6. More than 20 Presentations (Talks & Posters) in Internal Conferences, 1998-2011.