

Curriculum Vitae

Personal

Name: **Armen Saghatelian**

Date and place of birth: October 15, 1988, Yerevan, Armenia

Citizenship: Armenia

Address (home): 1st Ekmalyan st. 16, apt. 18, Yerevan, 0002 Armenia

Mailing address: Yerevan State University, Department of Theoretical Physics,
A. Manoogian St., 1, Yerevan, 0025, Armenia

Telephones: (+374)10 500260 (home), (+374) 55 500260 (mobile)

E-mails: armen.saghatelian@ysu.am,
armen.saghatelian@gmail.com

Languages spoken : Armenian, Russian, English

Education and degrees

2014 PhD, Yerevan State University
Thesis: "Action-Angle Variables In Conformal Mechanics"
Adviser: Professor A. Nersessian

2011 - 2014 PhD student, Yerevan State University, Faculty of Physics,
Department of Theoretical Physics

2011 MSc, Yerevan State University
Thesis: "Action-angle variables for generalized oscillator
and Coulomb systems and their applications"
Adviser: Professor A. Nersessian

2009 - 2011 Master student, Yerevan State University, Faculty of Physics,
Department of Theoretical Physics

2009 BSc, Yerevan State University
Thesis: "The spherical part of Calogero model and the integrals of motion"
Adviser: Professor T. Hakobyan

2005 - 2009 BSc student, Yerevan State University, Faculty of Physics,
Department of Applied Mathematics and Physics

Conferences and Workshops

- Armenia-Dubna Workshop
Problems of integrable (supersymmetric) systems,
24 - 26 December 2013, Dubna, Russia
- *Quantum Aspects of Black Holes and its Recent Progress*, International Workshop
Yerevan, Armenia, 24-26 September 2013
- Armenia-Dubna Workshop
Problems of integrable (supersymmetric) systems,
24 - 25 December 2012, Dubna, Russia
- SIS'12 - International Workshop
Supersymmetry in Integrable Systems,
Yerevan, Armenia, 27-30 August, 2012
- SIS'11 - International Workshop
Supersymmetry in Integrable Systems,
Hannover, Germany, 01-04 August, 2011
- SIS'10 - International Workshop
Supersymmetry in Integrable Systems,
Yerevan, Armenia, 24-28 August , 2010
- Humboldt Kolleg. XIV International Conference
Symmetry Methods in Physics,
Tsakhkadzor, Armenia, August 16 - 22, 2010

Present and past interests of research

- Integrable and superintegrable conformal mechanical systems
- Integration of mechanical systems by constructing its action-angle variables
- Near-horizon dynamics of Extremal black holes

Grants

- *Spherical systems related to the rational Calogero models*
ANSEF 3501-math-phys (2014)
- *Novel integrable systems in quantum mechanics*
SCS 13-1C114 (2013)
- *Supersymmetric integrable systems in quantum mechanics, field theory and gravity,*
SCS 13RF-018 (2013)
- *Duality defects,*
ANSEF hep-th-3267 (2013)
- *Defects in non-rational conformal field theory,*
ANSEF PS2774 (2012)
- *Geometric models of two- and one- dimensional integrable systems,*
SCS 11-1c258 (2011)
- *Mathematical models for low-dimensional quantum structures in external fields,*
SCS-BFBR 11RB-001 (2011)
- *Algebraic and geometric properties of (conformal) mechanics with extended supersymmetry,*
Volkswagen Foundation I/84 496 (2009)

List of publications

1. **“Spherical Mechanics for a Particle Near the Horizon of Extremal Black Hole”**
A.Galajinsky, A.Nersessian and A.Saghatelian
Physics of Particles and Nuclei Letters, Vol. **11** (2014),
2. **“Action-angle variables for spherical mechanics related to near horizon extremal MyersPerry black hole”**
A.Galajinsky, A.Nersessian and A.Saghatelian
Journal of Physics: Conference Series **474** (2013) 012019
3. **“Superintegrable models related to near horizon extremal Myers-Perry black hole in arbitrary dimension”**
A.Galajinsky, A.Nersessian and A.Saghatelian
JHEP **1306**, 002 (2013) [arXiv:1303.4901][hep-th]
4. **“Near-horizon dynamics of particle in extreme Reissner-Nordström and Clément-Gal’tsov black hole backgrounds: action-angle variables”**
A. Saghatelian
Classical and Quantum Gravity **29** (2012) 245018, arXiv:1205.6270v1 [hep-th]
5. **“Action-angle variables and novel superintegrable systems”**
T.Hakobyan, O.Lichtenfeld, A.Nersessian, A.Saghatelian and V.Yeghikyan
Physics of Particles and Nuclei, **43** (2012) 577-582
Proc. of Workshop on Supersymmetries and Quantum Symmetries, Dubna, 18-23 July 2011
6. **“Constants of Motion of the Four-Particle Calogero Model”**
A. Saghatelian
Physics of Atomic Nuclei, **Vol. 75, No. 10** (2012) 1288-1293
7. **“Integrable generalizations of oscillator and Coulomb systems via action-angle variables”**
T. Hakobyan, O. Lichtenfeld, A. Nersessian, A.Saghatelian and V. Yeghikyan
Phys.Lett. A376 (2012) 679-686 [arXiv:1108.5189] [hep-th]
8. **“Quantum ring models and action-angle variables”**
S. Bellucci, A. Nersessian, A. Saghatelian and V. Yeghikyan
J. Comp. Theor. Nanoscience, **8** No.4 (2011) 769-775 [arXiv:1008.3865] [cond-mat.mtrl-sci]
9. **“Invariants of the spherical sector in conformal mechanics”**
T. Hakobyan, O. Lichtenfeld, A. Nersessian and A. Saghatelian
J. Phys. **A44** (2011) 055205 [arXiv:1008.2912][math-ph]