

# CURRICULUM VITAE

## I. PERSONAL DATA

**NAME:** Nikolai Antonenko  
**BIRTHDATE:** 2nd June 1964.  
**BIRTHPLACE:** Tomsk (Russia)  
**CURRENT EMPLOYMENT:** Deputy Director  
Bogoliubov Laboratory of Theoretical  
Physics  
**ADDRESS:** Joint Institute for Nuclear Research;  
Bogoliubov Laboratory of Theoretical  
Physics,  
Joint Institute for Nuclear Research,  
141980 Dubna (Moscow region), Russia  
**E-mail:** antonenk@theor.jinr.ru  
**MARITAL STATUS:** Married, 1 Child  
**NATIONALITY:** Russian Federation  
**RESEARCH INTEREST:** mechanisms of heavy-ion interaction at  
low and intermediate energies, fusion  
reactions and production of superheavy  
nuclei, cluster effects in nuclear struc-  
ture, theory of open quantum systems.

## II. ACADEMIC DEGREES

**YEAR:** 1987  
**ACADEMIC DEGREE:** Master dergee  
**UNIVERSITY:** Tomsk Polytechnic Institute (Physics Department)  
**PLACE, COUNTRY:** Tomsk (Russia)  
**SUBJECT OF EXAMINATION:** Theoretical and Experimental Nuclear Physics

**YEAR:** 1991  
**ACADEMIC DEGREE:** Candidat of Physical and Mathematical Sciences (PhD)  
**UNIVERSITY:** Joint Institute for Nuclear Research

**YEAR:** 2013  
**ACADEMIC DEGREE:** Doctor of Sciences (Habilitation)  
**UNIVERSITY:** Joint Institute for Nuclear Research

### III. UNIVERSITY EDUCATION

**Time (from/to):** 1981 - 1987  
**University:** Physics Department of  
Tomsk Polytechnic Institute  
**Place, country:** Tomsk, Russia  
**Main subjects:** Nuclear Physics  
**Time (from/to):** 1988 - 1991, Post-graduate student  
**University:** Institute of Nuclear Physics,  
Tomsk Polytechnic Institute,  
**Place, country:** Tomsk (Russia) and  
**University:** Joint Institute for Nuclear Research,  
**Place, country:** Dubna (Russia)  
**Main subjects:** Nuclear Physics, Physics of Heavy-Ion Collisions

### IV. PROFESSIONAL BACKGROUND

Time(from/to – month/year)	Position	Name and place of Institute
March/1987 - October/1988	Junior Researcher	Institute of Nuclear Physics, Tomsk Polytechnic Institute
November/1988 - November/1991	Post-graduate student	Institute of Nuclear Physics, Tomsk Polytechnic Institute
November/1991 - May/1993	Senior Researcher	Institute of Nuclear Physics,
June/1993 - June/2013	Senior Researcher	BLTP, JINR, Dubna
June/2013 - November/2015	Leading Researcher	BLTP, JINR, Dubna
November/2015 - September/2017...	Head of Nuclear Theory Department	
September/2017 – ...	Deputy Director, BLTP	

**Teaching:** Lecture courses: Nuclear structure theory. Theory of nuclear reactions.  
Supervisor of Diploma students as well as PhD students.

### V. PRIZES, FELLOWSHIPS, AND AWARDS

1993, 2004, 2014, 2016 JINR Prizes,  
January/1997–December/1998, Alexander von Humboldt Fellowship  
Institut für Theoretische Physik, Justus-Liebig-Universität, Giessen  
2012, Scopus Award Russia (Elsevier Publishing) in physics  
2000 – 2017 Grants of Russian Foundation for Basic Research

# Publications of N.V.Antonenko for 2013-2017

## ARTICLES IN REFEREED JOURNALS

1. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2013): Threshold energy for sub-barrier fusion hindrance phenomenon. *Eur. Phys. J. A* **49**, 19 (7 pages).
2. Kuzmina A.N., Adamian G.G., Antonenko N.V. (2013): Role of quasiparticle structure in  $\alpha$ -decays of superheavy nuclei. *Bulletin of the Russian Academy of Sciences. Physics.* **77**, 406–410 (453–457 in russian).
3. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2013): Sub-barrier capture reactions with  $^{16,18}\text{O}$  and  $^{40,48}\text{Ca}$  beams. *Eur. Phys. J. A* **49**, 54 (7 pages).
4. Sargsyan V.V., Adamian G.G., Antonenko N.V., Gomes P.R.S. (2013): Derivation of capture cross sections from quasi-elastic excitation functions. *Phys. Rev. C* **87**, 044611 (7 pages).
5. Kuzyakin R.A., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2013): Study of isotopic effects in capture process. *Acta Phys. Pol. B* **44**, 471–474.
6. Kuzyakin R.A., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2013): Total and partial capture cross sections in reactions with deformed nuclei at energies near and below the Coulomb barrier. *Physics of Atomic Nuclei* **76**, 716–731 [766-781 (in russian)].
7. Zubov A.S., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2013): Population of the yrast superdeformed band in  $^{152}\text{Dy}$  within a cluster approach. *Phys. Rev. C* **88**, 034607 (14 pages).
8. Sargsyan V.V., Adamian G.G., Antonenko N.V., Gomes P.R.S. (2013): Derivation of reaction cross sections from experimental elastic backscattering probabilities. *Phys. Rev. C* **88**, 044606 (5 pages).
9. Andreev A.V., Adamian G.G., Antonenko N.V., Andreyev A.N. (2013): Isospin dependence of mass-distribution shape of fission fragments of Hg isotopes. *Phys. Rev. C* **88**, 047604 (4 pages).
10. Sargsyan V.V., Zubov A.S., Adamian G.G., Antonenko N.V., Heinz S. (2013): Production of exotic isotopes in complete fusion reactions with radioactive beam. *Phys. Rev. C* **88**, 054609 (5 pages).

11. Sargsyan V.V., Scamps G., Adamian G.G., Antonenko N.V., Lacroix D. (2013): Neutron pair transfer in sub-barrier capture process. *Phys. Rev. C* **88**, 064601 (7 pages).
12. Scamps G., Lacroix D., Adamian G.G., Antonenko N.V. (2013): Polarization of the nuclear surface in deformed nuclei. *Phys. Rev. C* **88**, 064327 (8 pages).
13. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2014): Derivation of breakup probabilities from experimental elastic backscattering data. *Eur. Phys. J. A* **50**, 71 (3 pages).
14. Mun Myeong-Hwan, Adamian G.G., Antonenko N.V., Oh Yongseok, Kim Youngman (2014): Production cross section of neutron-rich isotopes with radioactive and stable beams. *Phys. Rev. C* **89**, 034622 (7 pages) .
15. Bezbakh A.N., Shneidman T.M., Adamian G.G., Antonenko N.V. (2014): Level densities of the heaviest nuclei. *Eur. Phys. J. A* **50**, 97 (8 pages).
16. Kalandarov Sh.A., Adamian G.G., Antonenko N.V., Wieleczko J.P. (2014): Production of the doubly magic nucleus  $^{100}\text{Sn}$  in fusion and quasifission reactions via light particle and cluster emission channels. *Phys. Rev. C* **90**, 024609 (7 pages).
17. Sargsyan V.V., Adamian G.G., Antonenko N.V., Lacroix D. (2014): Non-Markovian dynamics with fermions. *Phys. Rev. A* **90**, 022123 (10 pages).
18. Adamian G.G., Antonenko N.V., Zubov A.S. (2014): Dinuclear systems in complete fusion reactions. *Physics of Particles and Nuclei*. **45**, 848–923 (1532–1663 in russian).
19. Adamian G.G., Antonenko N.V., Malov L.A., Scamps G., Lacroix D. (2014): Effects of angular dependence of surface diffuseness in deformed nuclei on Coulomb barrier. *Phys. Rev. C* **90**, 034322 (6 pages).
20. Ogloblin A.A., Zhang H.Q., Lin C.J., Jia H.M., Khlebnikov S.V., Kuzmin E.A., Trzaska W.H., Xu X.X., Yan F., Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W. (2014): Role of neutron transfer in asymmetric fusion reactions at sub-barrier energies. *Eur. Phys. J. A* **50**, 157 (5 pages).
21. Sargsyan V.V., Adamian G.G., Antonenko N.V., Diaz-Torres A., Gomes P.R.S., Lenske H. (2014): Extracting integrated and differential cross sections in low energy heavy-ion reactions from backscattering measurements. *Eur. Phys. J. A* **50**, 168 (11 pages).
22. Diaz-Torres A., Adamian G.G., Sargsyan V.V., Antonenko N.V. (2014): Energy-shifting formulae yield reliable reaction and capture probabilities. *Phys. Lett. B* **739**, 348–351.
23. Sargsyan V.V., Adamian G.G., Antonenko N.V., Diaz-Torres A., Gomes P.R.S., Lenske H. (2014): Deriving capture and reaction cross sections from observed quasi-elastic and elastic

backscattering. Phys. Rev. C **90**, 064601 (14 pages).

24. Antonenko N.V., Malov L.A. (2014): Excited states of deformed nuclei in the Quasi-particlePhonon Nuclear Model. Bulletin of the Russian Academy of Sciences. Physics **78**, 1137-1141 [in Russian 1402-1407].

25. Sargsyan V.V., Adamian G.G., Antonenko N.V., Gomes P.R.S. (2014): Disagreement between capture probabilities extracted from capture and quasi-elastic backscattering excitation functions. Eur. Phys. J. A **50**, 184 (4 pages).

26. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2015): Examination of the different roles of neutron transfer in the sub-barrier fusion reactions  $^{32}\text{S}+^{94,96}\text{Zr}$  and  $^{40}\text{Ca}+^{94,96}\text{Zr}$ . Phys. Rev. C **91**, 014613 (7 pages).

27. Scamps G., Sargsyan V.V., Adamian G.G., Antonenko N.V., Lacroix D. (2015): Analysis of the dependence of the few-neutron transfer probability on the  $Q$ -value magnitudes. Phys. Rev. C **91**, 024601 (3 pages).

28. Lacroix D., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2015): Description of non-Markovian effect in open quantum system with the discretized environment method. Eur. Phys. J. B **88**, 89 (8 pages).

29. Adamian G.G., Antonenko N.V., Lenske H. (2015): Role of the neck degree of freedom in cold fusion reactions. Phys. Rev. C **91**, 054602 (10 pages).

30. Mun Myeong-Hwan, Adamian G.G., Antonenko N.V., Oh Yongseok, Kim Youngman (2015): Toward neutron-rich nuclei via transfer reactions with stable and radioactive beams. Phys. Rev. C **91**, 054610 (9 pages).

31. Kuzyakin R.A., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2015): Entrance channel effects on sub-barrier capture. Phys. Rev. C **92**, 014603 (12 pages).

32. Bezbakh A.N., Shneidman T.M., Adamian G.G., Antonenko N.V., Zhou S.-G. (2015): Influence of shell structure on level densities of superheavy nuclei. Acta Phys. Pol. B **46**, 563–567.

33. Hong Juhee, Adamian G.G., Antonenko N.V. (2015): Influence of entrance channel on the production of hassium isotopes. Phys. Rev. C **92**, 014617 (8 pages).

34. Bezbakh A.N., Kartavenko V.G., Adamian G.G., Antonenko N.V., Jolos R.V., Nesterenko V.O. (2015): Quasiparticle structure of superheavy nuclei along the  $\alpha$ -decay chain of  $^{288}115$ . Phys. Rev. C **92**, 014329 (11 pages).

35. Shneidman T.M., Adamian G.G., Antonenko N.V., Jolos R.V., Zhou S.-G. (2015): Cluster approach to the structure of  $^{240}\text{Pu}$ . Phys. Rev. C **92**, 034302 (12 pages).

36. Sargsyan V.V., Adamian G.G., Antonenko N.V., Kohley Z. (2015): Isotopic trends in capture reactions with radioactive and stable potassium beams. *Phys. Rev. C* **92**, 054613 (5 pages).
37. Adamian G.G., Antonenko N.V., Lenske H. (2015): Origin of termination of negative-parity bands. *Phys. Rev. C* **92**, 054319 (6 pages).
38. Sargsyan V.V., Adamian G.G., Antonenko N.V., Diaz-Torres A., Gomes P.R.S., Lenske H. (2015): Derivation of breakup probabilities of weakly bound nuclei from experimental elastic and quasi-elastic scattering angular distributions. *Phys. Rev. C* **92**, 054620 (5 pages).
39. Ogloblin A.A., Zhang H.Q., Lin C.J., Jia H.M., Khlebnikov S.V., Kuzmin E.A., Danilov A.N., Demyanova A.S., Trzaska W.H., Xu X.X., Yan F., Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W. (2015): Analysis of the role of neutron transfer in asymmetric fusion reactions at sub-barrier energies. *Physics of Atomic Nuclei* **78**, 895-902 [1047-1054 (in russian)].
40. Adamian G.G., Antonenko N.V., Kalandarov Sh.A. (2016): Description of quasifission reactions in the dinuclear system model. *Physics of Particles and Nuclei* **47**, 1-48 [5–95 in Russian].
41. Kalandarov Sh.A., Lacroix D., Adamian G.G., Antonenko N.V., Wieleczko J.P., Pirrone S., Politi G. (2016): Quasifission and fusion-fission processes in the reactions  $^{78}\text{Kr}+^{40}\text{Ca}$  and  $^{86}\text{Kr}+^{48}\text{Ca}$  at 10 MeV/nucleon bombarding energy. *Phys. Rev. C* **93**, 024613 (6 pages).
42. Kuklin S.N., Adamian G.G., Antonenko N.V. (2016): Description of alpha decay and cluster radioactivity in the dinuclear system model. *Physics of Particles and Nuclei* **47**, 206-235 [389–442 in Russian].
43. Andreev A.V., Adamian G.G., Antonenko N.V. (2016): Asymmetry of fission fragment mass distribution for Po and Ir isotopes. *Phys. Rev. C* **93**, 034620 (4 pages).
44. Sargsyan V.V., Kanokov Z., Adamian G.G., Antonenko N.V. (2016): Application of the theory of open quantum systems to nuclear physics problems. *Physics of Particles and Nuclei* **47**, 157-205 [297–388 in Russian].
45. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V., Kim Youngman (2016): Energy-dependence of mass, charge, isotopic, and energy distributions in neutron-induced fission of  $^{235}\text{U}$  and  $^{239}\text{Pu}$ . *Phys. Rev. C* **93**, 054602 (9 pages).
46. Kalandarov Sh.A., Adamian G.G., Antonenko N.V., Wieleczko J.P. (2016): Expected production of new exotic  $\alpha$ -emitters  $^{108}\text{Xe}$  and  $^{112}\text{Ba}$  in complete fusion reactions. *Phys. Rev. C* **93**, 054607 (5 pages).

47. Sargsyan V.V., Adamian G.G., Antonenko N.V., Diaz-Torres A., Gomes P.R.S., Lenske H. (2016): Experimental elastic and quasi-elastic angular distributions provide transfer probabilities. *Phys. Rev. C* **93**, 054613 (3 pages).
48. Adamian G.G., Antonenko N.V., Bezbakh A.N., Jolos R.V. (2016): Effect of properties of superheavy nuclei on their production and decay. *Physics of Particles and Nuclei* **47**, 387-455.
49. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V. (2016): Possible origin of transition from symmetric to asymmetric fission. *Phys. Lett. B* **760**, 800–806.
50. Hong Juhee, Adamian G.G., Antonenko N.V. (2016): Possibilities of synthesis of unknown isotopes of superheavy nuclei with charge numbers  $Z > 108$  in asymmetric actinide-based complete fusion reactions. *Eur. Phys. J. A* **52**, 305 (11 pages).
51. Hong Juhee, Adamian G.G., Antonenko N.V. (2016): Possibilities of production of transfermium nuclei in charged-particle evaporation channels. *Phys. Rev. C* **94**, 044606 (18 pages).
52. Adamian G.G., Antonenko N.V., Lenske H., Saperstein E.E., Tolokonnikov S.V. (2016): Isotopic trends of nuclear surface properties of spherical nuclei. *Phys. Rev. C* **94**, 054309 (10 pages).
53. Adamian G.G., Antonenko N.V., Bezbakh A.N., Malov L.A. (2016): Manifestation of structure of heavy nuclei in alpha decay. *Physics of Atomic Nuclei* **79**, 951-962 [643-654 (in russian)].
54. Shneidman T.M., Adamian G.G., Antonenko N.V., Jolos R.V., Lenske H., Scheid W. (2016): Description of the alternative-parity bands within dinuclear system model. *Physics of Atomic Nuclei* **79**, 963-977 [655-669 (in russian)].
55. Bezbakh A.N., Shneidman T.M., Adamian G.G., Antonenko N.V., Zhou S.-G. (2016): Level densities of dinuclear systems. *Eur. Phys. J. A* **52**, 353 (8 pages).
56. Scamps G., Sargsyan V.V., Adamian G.G., Antonenko N.V., Lacroix D. (2016): Extraction of pure transfer probabilities from experimental transfer and capture data. *Phys. Rev. C* **94**, 064606 (4 pages).
57. Mun Myeong-Hwan, Adamian G.G., Antonenko N.V., Young-Ouk Lee (2016): Possibilities of production of neutron-rich Md isotopes in multi-nucleon transfer reactions. *Eur. Phys. J. A* **52**, 363 (6 pages).
58. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V. (2016): Unexpected asymmetry of the charge distribution in the fission of  $^{222,224}\text{Th}$  at high excitation energies. *Phys. Rev. C* **94**, 064614 (10 pages).

59. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V. (2016): Extraction of potential energy in charge asymmetry coordinate from experimental fission data. *Eur. Phys. J. A* **52**, 369 (11 pages).

60. Hong Juhee, Adamian G.G., Antonenko N.V. (2017): Ways to produce new super-heavy isotopes with  $Z = 111 - 117$  in charged particle evaporation channels. *Phys. Lett. B* **764**, 42–48.

61. Sargsyan V.V., Lacroix D., Adamian G.G., Antonenko N.V. (2017): Non-Markovian dynamics of fully coupled fermionic and bosonic oscillators. *Phys. Rev. A* **95**, 032119 (12 pages).

62. Kuzyakin R.A., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2017): Large-Amplitude Nuclear Motion Formulated in Terms of Dissipation of Quantum Fluctuations. *Physics of Particles and Nuclei* **48**, 158-209 (21–118 in Russian).

63. Kartavenko V.G., Bezbakh A.N., Malov L.A., Shirikova N.Yu., Sushkov A.V., Antonenko N.V., Jolos R.V. (2017): Quasiparticle structure of superheavy nuclei in  $\alpha$ -decay chains of  $^{285}\text{Fl}$  and  $^{291,293}\text{Lv}$ . *Chinese Physics C* **41**, 074105 (8 pages).

64. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2017): Comparative analysis of the fusion reactions  $^{48}\text{Ti}+^{58}\text{Fe}$  and  $^{58}\text{Ni}+^{54}\text{Fe}$ . *Phys. Rev. C* **95**, 054619 (8 pages).

65. Hong Juhee, Adamian G.G., Antonenko N.V. (2017): Possibilities of production of transfermium nuclei in complete fusion reactions with radioactive beams. *Phys. Rev. C* **96**, 014609 (12 pages).

66. Sargsyan V.V., Adamian G.G., Antonenko N.V., Lacroix D. (2017): Non-Markovian dynamics of mixed fermionic-bosonic systems: Rotating-wave-approximation coupling. *Phys. Rev. A* **96**, 012114 (9 pages).

67. Adamian G.G., Antonenko N.V., Lenske H. (2017): Examination of production and properties of  $^{268-271}\text{Hs}$ . *Phys. Rev. C* **96**, 044310 (12 pages).

68. Pasca H., Kalandarov Sh.A., Adamian G.G., Antonenko N.V. (2017): Spins of complex fragments in binary reactions with a dinuclear system model. *Phys. Rev. C* **96**, 044611 (12 pages).

69. Seif W.M., Adamian G.G., Antonenko N.V., Hisham Anwer (2017): Correlation between observed  $\alpha$  decays and changes in neutron or proton skins from parent to daughter nuclei. *Phys. Rev. C* **96**, 054328 (6 pages).

70. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V. (2018): Transitions between



symmetric and asymmetric modes in the region of heavy actinides. Nucl. Phys. A **969**, 226-236.

71. Adamian G.G., Antonenko N.V., Lenske H. (2018): Estimates of production and structure of nuclei with  $Z = 119$ . Nucl. Phys. A **970**, 22-28.

## PUBLISHED CONTRIBUTIONS TO ACADEMIC CONFERENCES

1. Zubov A.S., Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W. (2013): Formation of strongly deformed states in entrance channels. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, J. Phys.: Conf. Ser. **436** 012060 (6 pages).

2. Andreev A.V., Adamian G.G., Antonenko N.V. (2013): Cluster aspects of binary fission. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, J. Phys.: Conf. Ser. **436** 012059 (6 pages).

3. Zubov A.S., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2013): Population and properties of superdeformed bands in A 150 region. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, J. Phys.: Conf. Ser. **436** 012062 (3 pages).

4. Adamian G.G., Antonenko N.V., Jolos R.V., Kuzmina A.N., Malov L.A., Shirikova N.Yu., Sushkov A.V. (2013): Isomeric states and collective excitations of heaviest nuclei. Proc. the Fourteenth Int. Symp. on Capture  $\gamma$ -Ray Spectroscopy and Related Topics, August 28–September 2, 2011. Eds. Paul E. Garrett and Baharak Hadinia (World Scientific, Singapore, 2013) 185–191.

5. Adamian G.G., Antonenko N.V., Bezbakh A.N., Shneidman T.M. (2013): Impact of nuclear structure on the production and identification of superheavy nuclei. Proc. Int. Conf. on Nuclear Physics, June 2–6, 2011, Florence, Italy, Eur. Phys. J. WEB Conferences **21**, 06002 (14 pages).

6. Zubov A.S., Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W. (2013): Formation of strongly deformed states in entrance channels. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, J. Phys.: Conf. Ser. **436** 012060 (6 pages).

7. Andreev A.V., Adamian G.G., Antonenko N.V. (2013): Cluster aspects of binary fission. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, J. Phys.: Conf. Ser. **436** 012059 (6 pages).

8. Zubov A.S., Sargsyan V.V., Adamian G.G., Antonenko N.V. (2013): Population and properties of superdeformed bands in  $A \approx 150$  region. 10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, 2428 September 2012, Debrecen, Hungary, *J. Phys.: Conf. Ser.* **436** 012062 (3 pages).

9. Adamian G.G., Antonenko N.V., Jolos R.V., Kuzmina A.N., Malov L.A., Shirikova N.Yu., Sushkov A.V. (2013): Isomeric states and collective excitations of heaviest nuclei. Proc. the Fourteenth Int. Symp. on Capture  $\gamma$ -Ray Spectroscopy and Related Topics, August 28–September 2, 2011. Eds. Paul E. Garrett and Baharak Hadinia (World Scientific, Singapore, 2013) 185–191.

10. Adamian G.G., Antonenko N.V., Bezbakh A.N., Shneidman T.M. (2014): Impact of nuclear structure on the production and identification of superheavy nuclei. Proc. Int. Conf. on Nuclear Physics, June 2–6, 2013, Florence, Italy, *Eur. Phys. J. WEB Conferences* **66**, 02003 (4 pages).

11. Adamian G.G., Antonenko N.V., Bezbakh A.N., Shneidman T.M., Scheid W. (2014): Impact of nuclear structure on production of superheavy nuclei. Proc. International Symposium on Entrance Channel Effect on the Reaction Mechanism in Heavy Ion Collisions 68 November 2013, Messina, Italy, *J. Phys.: Conf. Ser.* **515** 012002 (12 pages).

12. Sargsyan V.V., Scamps G., Adamian G.G., Antonenko N.V., Lacroix D., Scheid W., Zhang H.Q. (2014): Impact of nuclear structure on production of superheavy nuclei. Proc. International Symposium on Entrance Channel Effect on the Reaction Mechanism in Heavy Ion Collisions 68 November 2013, Messina, Italy, *J. Phys.: Conf. Ser.* **515** 012001 (12 pages).

13. Sargsyan V.V., Adamian G.G., Antonenko N.V., Gomes P.R.S. (2014): Derivation of capture and reaction cross sections from experimental quasi-elastic backscattering probabilities. Proc. 4th Int. Workshop on Compound-Nuclear Reactions and Related topics, October 7–11, 2013, Maresias, Brazil, *Eur. Phys. J. WEB Conferences* **69**, 00004 (14 pages).

14. Sargsyan V.V., Adamian G.G., Antonenko N.V., Scheid W., Zhang H.Q. (2014): Fusion at near-barrier energies within quantum diffusion approach. Proc. 4th Int. Workshop on Compound-Nuclear Reactions and Related topics, October 7–11, 2013, Maresias, Brazil, *Eur. Phys. J. WEB Conferences* **69**, 00015 (15 pages).

15. Antonenko N.V., Adamian G.G., Bezbakh A.N., Sargsyan V.V., Shneidman T.M., Scheid W. (2015): Possibilities of production of heaviest nuclei. Proc. XXII Nuclear Physics Workshop, September 22–27, 2015, Kazimierz, Poland, *Acta Phys. Pol. B Proceedings Supplement* **8**, 529–538.

16. Adamian G.G., Antonenko N.V., Lenske H. (2015): Mechanism of termination of negative-parity bands. Proc. Int. Workshop on Shapes and Dynamics of Atomic Nuclei: Contemporary Aspects, October 8–10, 2015, Sofia, Bulgaria, *Bulgaria Journal of Physics* **42**, 477–484.

17. Adamian G.G., Antonenko N.V., Bezbakh A.N., Sargsyan V.V., Scheid W. (2016): Perspectives of production of superheavy nuclei. Proc. LATIN AMERICAN SYMPOSIUM ON NUCLEAR PHYSICS AND APPLICATIONS, November,30–December,4 2015, Medellin, Colombia, AIP Conf. Proc. **1753**, 030010 (8 pages).

18. Sargsyan V.V., Adamian G.G., Antonenko N.V., Diaz-Torres A., Gomes P.R.S., Lenske H. (2016): Extracting integrated and differential cross sections in low energy heavy-ion reactions from backscattering measurements. Proc. LATIN AMERICAN SYMPOSIUM ON NUCLEAR PHYSICS AND APPLICATIONS, November,30–December,4 2015, Medellin, Colombia, AIP Conf. Proc. **1753**, 030008 (8 pages).

19. Adamian G.G., Antonenko N.V., Bezbakh A.N., Jolos R.V., Malov L.A., Wang K., Zhou S.-G., Lenske H. (2017): Influence of properties of superheavy nuclei on their  $\alpha$ -decays. Acta Phys. Pol. B **48** 441–450.

20. Pasca H., Andreev A.V., Adamian G.G., Antonenko N.V. (2017): Physical Origin of the Transition from Symmetric to Asymmetric Fission Fragment Charge Distribution. Acta Phys. Pol. B **48** 431–440.