CURRICULUM VITAE

of Prof. Anatoli Afanasjev [1]

Updated 10/20/2017

1 Academic degrees

06/16/1993 Dr. Phys. (Doctor of Physics)
Nuclear Research Center, Latvian Academy of Sciences, Latvia
Dissertation "Study of quadrupole rotation-vibration and reflection asymmetric rotor+two particle coupling models for deformed odd-odd nuclei"

06/11/1999 Dr. hab. Phys. (Habilitated Doctor of Physics)
Latvian State University, Riga, Latvia
Habilitation work "Theoretical study of rotating nuclei at extreme conditions"

2 Stages of university education

09/1979 - 06/1984 Latvian State University, Riga, Latvia
main subjects: physics, mainly theoretical nuclear physics

11/1989 - 06/1993 PhD student, Nuclear Reaction Laboratory, Institute of Physics (Nuclear Research Center since summer of 1992), Latvian Academy of Sciences
main subject: theoretical nuclear physics

3 Complete professional background

09/1986 - 03/1993

- Senior engineer of Nuclear Safety Service, Nuclear Reactor, Institute of Physics (Nuclear Research Center since summer of 1992) of Latvian Academy of Sciences, Salaspils, Latvia

03/1993 - 02/1994

- Researcher, Nuclear Reaction Laboratory, Nuclear Research Center, Latvian Academy of Sciences, Salaspils, Latvia

02/1994 - 12/1998

- Senior Researcher, Nuclear Reaction Laboratory, Nuclear Research Center, Latvian Academy of Sciences, Salaspils, Latvia

[1] "A. V. Afanasjev" or "Anatoli Afanasjev" are the spellings of my name in the publications

01/1999

- Senior Researcher, Laboratory of Radiation Physics, Institute of Solid State Physics, University of Latvia, Salaspils, Latvia

09/1993 - 12/1993; 08/1994 - 04/1995; 12/1995 - 06/1996; 03/1997 - 04/1998;

- Visiting Scientist, Department of Mathematical Physics, Lund Institute of Technology, Sweden

05/1995 - 10/1995; 01/1997 - 02/1997

- Volkswagenstiftung Fellow at the Department of Physics T30, Technical University of Munich, Germany

06/1996 - 08/1996

- Visiting Scientist, Department of Physics T30, Technical University of Munich, Germany

03/1998 - 03/1998

- Visiting Scientist, Physics Department, State University of New York at Stony Brook, USA

10/1996 - 12/1996

- Visiting Scientist, NORDITA - Nordisk Institut for Teoretisk Fysik, Copenhagen, Denmark

05/1998 - 01/2000

- Alexander von Humboldt fellow at the Physik-Department T30, Technical University of Munich, Germany

01/2000 - 07/2000

- Research Associate (position BAT2A), Physik-Department T30, Technical University of Munich, Germany

10/2000 - 06/2001

- Postdoctoral Research Associate, University of Notre-Dame, USA

07/2001 - 06/2002

- Visiting Scientist, Argonne National Laboratory, USA

07/2002 - 08/2005

- Research Assistant Professor, University of Notre-Dame, USA

08/2005 - 08/2007

- Assistant Professor, Mississippi State University, USA

08/2007 - 08/2010

- Associate Professor, Mississippi State University, USA

08/2010 - now

- Professor, Mississippi State University, USA

4 Long-term visits starting from 2008

- 05/06/2008-05/30/2008
  RIKEN Nishina Center for Accelerator-Based Science, Japan, funded by the JUSTIPEN program
- 06/25/2008-07/29/2008
  Institute of Solid State Physics, University of Latvia, Latvia
- 01/03/2012 - 04/27/2012
  sabbatical leave at Joint Institute for Heavy Ion Research, Oak Ridge National Laboratory, Oak Ridge, TN, USA
- 06/22/2015-08/16/2015
  invited fellow of Japan Society for Promotion of Science (JSPS), Tsukuba University, Japan

5 Teaching experience

01/1984 - 05/1984, 09/1988 - 05/1989

- teaching of physics and mathematics in high school, Riga, Latvia

2000 - 2001, 2001 - 2002 academic years

- assistance (by presenting approximately 15% of lectures) in teaching of the "Quantum Mechanics" course for graduate students, University of Notre Dame, USA

2002, fall semester

- General Physics III M (Phys-253) course for sophomore students, University of Notre-Dame, USA
- General Physics III M - Laboratory (Phys-253-Lab) course for sophomore students, University of Notre-Dame, USA

2003, spring semester

- course 602 "Statistical Thermodynamics" for graduate students, University of Notre-Dame, USA

2003, fall semester

- course 503 "Methods of Theoretical Physics I" for graduate students, University of Notre-Dame, USA

2004, spring semester

- course 602 "Statistical Thermodynamics" for graduate students, University of Notre-Dame, USA

2004, fall semester

- course 503 "Methods of Theoretical Physics I" for graduate students, University of Notre-Dame, USA

2005, spring semester

- course 602 "Statistical Thermodynamics" for graduate students, University of Notre-Dame, USA

2005, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2006, spring semester

- course 4333/6333 "Electromagnetic Fields II" Mississippi State University, USA

2006, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2007, spring semester

- course 2223 "Physics II: Electricity and magnetism", Mississippi State University, USA

2007, fall semester

- course 2223 "Physics II: Electricity and magnetism", Mississippi State University, USA

2008, spring semester

- course 4333/6333 "Electromagnetic Fields II" Mississippi State University, USA

2008, fall semester

- course 2223 "Physics II: Electricity and magnetism", Mississippi State University, USA

2009, spring semester

- course 2223 "Physics II: Electricity and magnetism", Mississippi State University, USA

2009, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2010, spring semester

- course 2223 "Physics II: Electricity and magnetism", 2 sections, Mississippi State University, USA

2010, fall semester

- course 8743 "Quantum mechanics I", Mississippi State University, USA

2011, spring semester

- course 2223 "Physics II: Electricity and magnetism", Mississippi State University, USA

2011, fall semester

- course 8743 "Quantum mechanics I", Mississippi State University, USA

2012, fall semester

- Directed Individual Studies "Advanced theoretical nuclear structure", Mississippi State University, USA

2013, spring semester

- course 2223 "Physics II: Electricity and magnetism", 2 sections, Mississippi State University, USA
- Directed Individual Studies "Theoretical nuclear structure", Mississippi State University, USA

2013, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2014, spring semester

- course 4333/6333 "Electromagnetic Fields II" Mississippi State University, USA

2014, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2015, spring semester

- course 4333/6333 "Electromagnetic Fields II" Mississippi State University, USA

2015, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

2016, fall semester

- course 4323/6323 "Electromagnetic Fields I" Mississippi State University, USA

6 Grants (only those in USA are listed)

- 1998 - U.S. National Research Council, Twinning program USA-Latvia (1997-1999), project "Investigation of Smooth Terminating Bands for nuclei in the $A \sim 110$ Region" - 13,500 $

- 2004 - 2006 - U. S. Department of Energy, Office of Science, project "Nuclear properties at extreme density, temperature, spin and isospin" - 414,000 $ (138,000 $ per year) (coinvestigator)

- 2007 - Travel grant from the Mississippi State University - 1,000 $.

- 2008 - Travel grant from Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN) - 4,112 $

- 2006 - 2009 - U. S. Department of Energy, Office of Science, project "Nuclei at extreme conditions: a relativistic study" - 212,000 $ (Principal Investigator)

- 2009 - Travel grant from Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN) - 2,000 $

- 2009 - 2012 - U. S. Department of Energy, Office of Energy Research, project "Nuclei at extreme conditions: a relativistic study" - 222,000 $ (Principal Investigator)

- 2010 - Travel grant from Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN) - 2,909 $

- 2011 - Travel grant from Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN) - 3,208 $

- 2012 - Travel grant from France-U.S. Institute for Physics with Exotic Nuclei (FUSTIPEN) - 2,575 $

- 2012 - 2015 - U. S. Department of Energy, Office of Science, project "Nuclei at extreme conditions: a relativistic study" - 210,000 $ (Principal Investigator)

- 2013 - Travel grant from Japan-U.S. Institute for Physics with Exotic Nuclei (JUSTIPEN) - 2.030 $

- 2013 - Travel grant from China-U.S. Institute for Physics with Exotic Nuclei (CUSTIPEN) - 1,596 $

- 2015-2016 - U. S. Department of Energy, Office of Science, project "Nuclei in a relativistic framework: at and beyond density functional theory", $164.000 (Principal Investigator)

- 2015 - APS-IUSSTF Professorship Award in Physics, APS-IUSSTF = American Physical Society (APS) and Indo-U.S. Science and Technology Forum (IUSSTF), $4,000

- 2015 - travel support to attend YIPQS Long-term workshop "Computational Advances in Nuclear and Hadron Physics (CANHP 2015)", September 21 - October 30, 2015, Kyoto, Japan provided by YIQPS. Note that I was attending only the week of October 18 - 24, 2015 dedicated to density functional theories. YIQPS = Yukawa Institute for Theoretical Physics, Kyoto, Japan
  Total support = $2669.50

- 2016-2018 - National Nuclear Security Administration, Department of Energy, project "Microscopic description of fission in a relativistic framework", $180.000 (Principal Investigator)

- 2016 CUSTIPEN support

- 2017-2019 - U. S. Department of Energy, Office of Science, project "Nuclei in a relativistic framework: at and beyond density functional theory", $264.000 (Principal Investigator)

- 2018 CUSTIPEN support

7 Awards

- 1994, 1995, 1997 - the fellowships of the Royal Swedish Academy of Sciences (Sweden)

- 1993, 1995, 1997, 2000 - the fellowships of the Crafoord Foundation (Sweden)

- 1996 - the Nordic-Baltic fellowship at NORDITA (Denmark)

- 1997 - the recipient of the grant within the Twinning Program between USA and Latvia, National Research Council, USA

- 1995, 1997 - the fellowships of the Volkswagen Foundation (Germany)

- 1998 - 2000: the fellowship of the Alexander von Humboldt Foundation (Germany)

- 2010: 2010 State Pride Award, Mississippi State University

- 2011: James W. Bagley faculty award, Mississippi State University

- 2013-2014 Dean's Eminent Scholar, College of Arts and Sciences, Mississippi State University

- **2013 Fellow of American Physical Society**

- 2014 ORED Faculty Research Award for the College of Arts Sciences, Mississippi State University

- 2014 College of Arts and Sciences Faculty Research Award Recepient, Mississippi State University

- 2015 - APS-IUSSTF Professorship Award in Physics, APS-IUSSTF = American Physical Society (APS) and Indo-U.S. Science and Technology Forum (IUSSTF)

- 2015 - invitation fellow of Japan Society for Promotion of Science
- 2018 - Visiting Professor at Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan

8 Citation index of my works

Usually, the impact of the work of a scientist on the research field is accessed via citation index, i.e. the number of times his articles are cited. The analysis of the citation index of my works is performed according to Google Scholar and Web of Science and presented in Table 1. These are web-based platforms which provide the sources and tools to access, analyze, and manage research information about the publications of specific author. In particular, they provide the information on total number of citations, h-index (the largest number h such that h publications have at least h citations) and $i10$-index (the number of publications with at least 10 citations). Note that because of historical reasons my publications appear under the name A.V. Afanasjev.

Table 1: The analysis of the citations of the publications of A. V. Afanasjev

	Google Scholar**	Web of Science*	Scopus
Total number of citations	6490	3982	5114
Number of articles		153	179
h-index	43	35	36
Number of citations to most cited publication	890	626	675
Number of articles cited more than 100 times	14	9	11
Number of articles cited more than 50 times	39	26	27
$i10$-index	108		93
Last updated	10/07/2019	12/31/2018	10/07/2019

* Note that I have only occasional access to Web of Science since our University does not subscribe to it.

9 Former graduate students

1. **Hazem Abusara**, M.S., Physics, December 2008, PhD, December 15, 2011.
PhD Dissertation Topic: "Nuclear Phenomena in Covariant Density Functional Theory"
Presently (2018) Assistant Professor at Birzeit University, Birzeit, Palestine.

2. **Debisree Ray**, PhD, May 2017.
PhD Dissertation Topic: "Covariant density functional theory: global performance and rotating nuclei
continues scientific carrier:
June 2018 - now, Postdoctoral Research Associate, Institute For Systems Engineering Research

(ISER), Mississippi State University.

3. **Sylvester Agbemava**, PhD, December 2018.
PhD Dissertation Topic: "Finite nuclei in covariant density functional theory: a global view with an assessment of theoretical uncertainties"
continues scientific carrier
January 1 - May 15, 2019 - Visiting Assistant Professor at Department of Physics and Astronomy, Mississippi State University
May 16, 2019 - November 15, 2018 - Visiting Scientist at the Center for Computational Science, High Performance Collaboratory, Mississippi State University.

10 The members of my research group (both undegraduate and graduate students are listed) with their accomplishments (if any) listed

- Chang Woon Jang - August 2006 - December 2007

  Presentations:
  1. 74th Annual Meeting of the Southeastern Section of the American Physical Society, November 8, 2007, Nashville, Tennessee, USA, **Hyperdeformation in the $Z = 40 - 60$ part of nuclear chart**.

- Jonathan Begnaud - January 2007 - December 2007 (undergraduate student)

  Refereed publications:
  1. Y. C. Zhang, W. C. Ma, **A. V. Afanasjev**, G. B. Hagemann, **J. Begnaud**, M. P. Carpenter, P. Chowdhury, D. M. Cullen, M. K. Djongolov, D. J. Hartley, R. V. F. Janssens, T. L. Khoo, F. G. Kondev, T. Lauritsen, E. F. Moore, E. Ngijoi-Yogo, S. Ødegård, L. L. Riedinger, S. V. Rigby, D. G. Roux, D. T. Scholes, R. B. Yadav, Jing-Ye Zhang, and S. Zhu, **Nuclear shapes of highly deformed bands in ^{171,172}Hf and neighboring Hf isotopes**, Physical Review C 76 (2007) 064321: 1-10

- Hazem Abusara - January 2007 - now
  Hazem has received under my supervision his Master of Science in December 2008 and his PhD degree on 10/17/2011.

  Presentations:

  1. Division of Nuclear Physics, American Physical Society, Oakland, US, 10/25/2008
  Recent advances in the study of hyperdeformation at high spin
  oral talk

  2. 8th International conference on radioactive nuclear beams (RNB8), May 26-30, 2009 Grand Rapids, Michigan, USA, **Hyperdeformation at high spin: general features and the best candidates for observation**

poster

3. 8th International conference on radioactive nuclear beams (RNB8), May 26-30, 2009 Grand Rapids, Michigan, USA, **Time-odd mean fields and their impact on physical observables**
poster

4. Division of Nuclear Physics, American Physical Society, Santa-Fe, US, 10/11/2010
Fission barriers in covariant density functional theory
oral talk

5. National Nuclear Physics Summer School, June 2011, University of North Carolina - Chapel Hill
Fission barriers in covariant density functional theory
poster

Refereed publications:

1. A.V. Afanasjev and H. Abusara, **Hyperdeformation in the cranked relativistic mean field theory: The $Z = 40 - 56$ region of the nuclear chart.** Phys. Rev. C 78 (2008) 014315: 1-22.

2. H. Abusara and A. V. Afanasjev, **Hyperdeformation in the Cd isotopes: A miscroscopic analysis.** Physical Review C 79 (2009) 024317: 1-7

3. Q. A. Ijaz, W. C. Ma, H. Abusara, A. V. Afanasjev, Y. B. Xu, R. B. Yadav, and Y. C. Zhang, M. P. Carpenter, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, and D. T. Nisius, **Observation of excited superdeformed bands in ^{154}Dy and cranked relativistic mean field interpretation** Physical Review C 80 (2009) 034322: 1-7

4. A. V. Afanasjev and H. Abusara, **Time-odd mean fields in covariant density functional theory: Non-rotating systems.** Physical Review C 81 (2010) 014309: 1-20.

5. A. V. Afanasjev and H. Abusara **Time-odd mean fields in covariant density functional theory: Rotating systems** Physical Review C 82 (2010) 034329: 1-20.

6. H. Abusara, A. V. Afanasjev, P. Ring, **Fission barriers in actinides in covariant density functional theory: the role of triaxiality.** Physical Review C 82 (2010) 044303: 1-11

7. A. V. Afanasjev, H. Abusara, E. Litvinova, P. Ring, **Spectroscopy of the heaviest nuclei (theory)**, Journal of Physics: Conference Series 312 (2011) 092004: 1-10

8. P. Ring, H. Abusara, A. V. Afanasjev, G. A. Lalazissis, T. Niksic, and D. Vretenar, **Modern applications of covariant density functional theory**, International Journal of Modern Physics E, vol. 20, No. 2, (2011) 235-243

Awards
H. Abusara has been awarded the membership (MSc Award) of the Scientific Research Society

of Sigma Xi in 2009 for his contribution into theoretical studies of hyperdeformation.

- Riyan Mu - August 2008 - July 2009
- Sheeren Shawaqfeh - August 2009 - September 2010

  Refereed publications:

  A. V. Afanasjev and S. Shawaqfeh, **Deformed one-quasiparticle states in covariant density functional theory**, submitted to Physics Letters B
- Omadillo Abdurazakov - January 2011 - now
- Debisree Ray - October 2011 - now

  Presentations:
  American Physical Society meeting, April 5-8, 2014, Savannah, Georgia, USA
  Nuclear landscape and drip lines in covariant density functional theory
  contributed talk [12 min]
- Physics Department, S A Jaipura College, 10, Raja Naba Krishna Street, Calcutta - 700 005, July 25, 2015

  Nuclear landscape and drip lines in covariant density functional theory
  seminar [45 min]
- Division of Nuclear Physics meeting, American Physical Society, Santa Fe, October 27 - October 31, 2015,
  Extreme deformations and clusterization at high spin in the $A \sim 40$ mass region
- Sylvester Agbemava - January 2013 - now

  Presentations:
  American Physical Society meeting, April 5-8, 2014, Savannah, Georgia, USA
  Global performance of covariant energy density functionals: ground state observables of even-even nuclei and error estimates.
  contributed talk [12 min]
- Division of Nuclear Physics meeting, American Physical Society, Santa Fe, October 27 - October 31, 2015
  Single-particle degrees of freedom and pairing properties as sources of theoretical uncertainties in the position of the neutron drip line

11 MSc or PhD Commitee member

1. 09/13/2007 - (PhD proposal defense) Ram Yadev

2. 12/2007 - PhD thesis "Non-equilibrium surface growth for competative growth models and applications to conservative parallel discrete event simulations" by Poonam Santosh Verma, Mississippi State University.

3. 2/12/2008 - (PhD defense) - Yanci Zhang
4. 03/23/09 - (MSc defense) - Jie Shu
5. 06/12/09 - (PhD defense) - Ram Yadav
6. 10/1/10 - (MSc proposal) - Shokir Pardaev
7. 11/22/10 - (PhD proposal defence) - Jeongpil Song, MSU
8. 05/27/2011 - official opponent of PhD defense by Jevgenijs Proskurins, University of Latvia, Latvia.
9. 08/07/2011 - PhD thesis "Quantum Monte Carlo simulations of fermion systems with matrix produc states" defense by Jeong-pil Son, MSU. Student failed.
10. 10/25/2011 - PhD thesis "Study of excited superdeformed bands in ^{154}Dy and high-spin spectroscopy of ^{171}Hf" defence by Quratul Ann Ijaz, MSU
11. 11/17/2011 - PhD thesis "Quantum Monte Carlo simulations of fermion systems with matrix produc states" defense by Jeong-pil Son, MSU.

12 Memberships

American Physical Society (APS)

13 Knowledge and experience with software

- Programming languages
  1. Fortran (Fortran 77 and Fortran 90 flavors) [20 years of experience]
  2. MATLAB
  3. TurboPascal
  4. Basic
  5. PL1
- Operational systems
  1. Linux, UNIX
  2. Windows

14 Referee activities

Reviewer for the following journals:
Physical Review Letters,
Physics Letters B,
Physics Review C,
Nuclear Physics A,
Journal of Physics G,
European Physical Journal,
Physica Scripta,
International Journal of Modern Physics E,

Progress of Theoretical Physics.
Fizika B
Journal of Physics: Conference Series

15 Presentations at the Conferences

15.1 ORAL PRESENTATIONS

1. 39 USSR conference on the Nuclear spectroscopy and the structure of atomic nuclei, April 10 - 13, 1989, Leningrad, USSR
Octupole deformation of the Eu isotopes

2. NORDITA Halo Weekend-94, January 1994, Copenhagen, Denmark
Octupole correlations in the $A \sim 150$ region

3. IV International Conference on Selected Topics in Nuclear Structure, July 1994, Dubna, JINR, Russia
Microscopic structure of high-spin spectra of nuclei in the $Z \sim 42-45$ and $N \sim 46-49$ region

4. 8th Nordic Meeting on Nuclear Physics, June 5 - 9, 1995, Ronneby Brunn, Sweden,
High-Spin Collective and Non-collective Structures in Nuclei Close to Double-Magic ^{100}Sn

5. NORDITA Study Weekend on Euroball Physics, May 9 - 12, 1996, Copenhagen, Denmark
Cranked relativistic mean field description of superdeformed rotational bands in the $A \sim 140 - 150$ mass region
invited speaker

6. International Symposium on EXOTIC NUCLEAR SHAPES, May 12 - 17, 1997, Debrecen, Hungary
Cranked relativistic mean field description of superdeformed rotational bands

7. International conference "Advances in Nuclear Physics and Related Areas", July 8 - 12, 1997, Thessaloniki, Greece
Rotational bands at the limit of angular momentum
invited speaker

8. The International Conference "NUCLEAR STRUCTURE AND RELATED TOPICS", September 9 - 13, 1997 Dubna, Russia
Relativistic Mean Field Theory in Rotating Frame: Properties of Superdeformed Rotational Bands

9. Swedish Nuclear Physics Days, December 12 - 13, 1997, Lund, Sweden
Lifetimes in Terminating Bands
invited speaker

10. 215^{th} American Chemical Society National Meeting, Division of Nuclear Chemistry and Technology, Conference "Nuclear Structure with Large Gamma-Ray Detector Arrays and their Auxiliary Devices", March 29 - 31, 1998, Dallas, Texas, USA
Relativistic Mean Field versus Nilsson-Strutinsky description of high-spin phenomena in the 'unpaired' regime
invited speaker

11. 9th Nordic Meeting on Nuclear Physics, Finland, August 4 - 8, 1998
Rotating nuclei in the cranked relativistic mean field theory
invited speaker

12. International Nuclear Physics Conference, August 24 - 28, 1998, Paris, France
Rotating nuclei at extreme conditions: cranked relativistic mean field description.

13. International Conference on Achievements and Perspectives in Nuclear Structure, July 11 - 17, 1999, Crete, Greece
Superdeformations in Relativistic and Non-Relativistic Mean Fields
invited/keynote speaker

14. International Symposium on Exotic Nuclear Structures, May 15 - 20, 2000, Debrecen, Hungary
Properties of superdeformed fission isomers in the cranked relativistic Hartree-Bogoliubov Theory

15. International Conference "Bologna 2000, Structure of the Nucleus at the Dawn of the Century", May 29 - June 3, 2000, Bologna, Italy
Cranked relativistic Hartree-Bogoliubov theory: Superdeformation in the $A \sim 190$ mass region
invited speaker

16. Pingst 2000 International workshop "Selected topics of $N = Z$ nuclei", June 2000, Lund, Sweden,
Mean field studies of high-spin properties in the $A \sim 30$ and 60 regions of superdeformation
invited speaker

17. International workshop "Nuclear structure for the 21th century" at the Institute for Nuclear Theory in Seattle, USA, November 28, 2000, USA
Time-odd mean fields in the rotating frame: Microscopic nature of nuclear magnetism
invited speaker

18. NATO Advanced Research Workshop: "The Nuclear Many-Body Problem 2001", Brijuni National Park, Pula, Croatia, June 2 - 5, 2001
Rotating nuclei in the Relativistic Mean Field theory
keynote speaker

19. Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, New Hampshire, USA, June 17 - 22, 2001
Rotating properties of $N \sim Z$ nuclei in conventional models
invited speaker

20. Nuclear Theory Workshop on *Rare Isotope Physics*, Physics Division, Argonne National Laboratory, Argonne, USA, June 25 - 29, 2001
Microscopic nature of nuclear magnetism in Relativistic Mean Field Theory
invited speaker

21. Conference on Frontiers of Nuclear Structure, Berkeley, California, July 29 - August 2, 2002, UC Berkeley
Probing the Gateway to Superheavy Nuclei in Cranked Relativistic Hartree-Bogoliubov Theory

22. Conference on "Nuclei at the Limits", Argonne National Laboratory, July 26-30, 2004, Argonne, IL, USA
Self-consistency Effects in Superheavy nuclei

23. Institute for Nuclear Theory workshop "Relativistic Density Functional Theory for Nuclear Structure", September 20-24, 2004, Seattle, USA
Cranked relativistic Hartree-Bogoliubov theory: rotating nuclei, proton-neutron pairing and towards superheavy nuclei invited speaker

24. American Physical Society, Nuclear Physics Division, Chicago, USA, October 28-31, 2004
Superdeformation and hyperdeformation in the $A \sim 110$ mass region.

25. Joint Institute for Nuclear Astrophysics "R-process discussions", Notre Dame, USA, January 28-29, 2005
Mean field (and beyond) model approaches for r-process studies invited speaker (20 min)

26. International Conference on Finite Fermionic Systems: Nilsson Model 50 Years, June 14-18, 2005, Lund, Sweden
Superheavy nuclei: relativistic mean field outlook
keynote speaker [40 min]

27. Institute of Nuclear Theory Workshop "Pairing degrees of Freedom in Nuclei and the Nuclear Medium", Nov. 14-17, 2005, Seattle, USA

Cranking Relativistic Hartree-Bogolyobov theory: pairing in rotating nuclei and the problem of proton-neutron pairing
invited speaker [45 min]

28. ATLAS Users Workshop, Physics Division, Argonne National Laboratory, USA, April 8, 2006
ATLAS+GAMMASPHERE: future challanges - theoretical outlook
invited talk

29. International conference "Nuclear Structure'06", July 24-28, 2006, Oak Ridge, Tennessee, USA
Rotating $N \sim Z$ nuclei: A search for isovector and isoscalar Neutron-Proton Pairing Condensates,
invited talk [20 min]

30. Workshop "The future of Gamma-Ray Spectroscopy", Florida State University, Tallahasse, August 17-18, 2006, USA
GRETA/GRETINA: physical challanges - view of theorist
invited talk [45 min]

31. XIII Nuclear Physics Workshop Maria and Pierr Currie "Pairing and beyond - 50 years of the BCS Model", Kazimierz Dolny, Poland, September 27 - October 1, 2006
High-spin structures as the probes of proton-neutron pairing
keynote speaker [35 min]

32. 2006 Meeting of the Nuclear Physics Division of American Physical Society, October 25 - October 28, 2006, Gaylord Opryland, Nashville, USA
Time-odd mean fields in covariant density functional theory
contributed talk

33. Division of Nuclear Physics Town Meeting for NSAC Long Range Plan, January 19-21, 2007, Chicago, USA
Relativistic Mean Field Approaches
invited speaker

34. Mississippi Academy of Science 2007 annual meeting, February 22-23, 2007, Starkville, USA
Superheavy nuclei: a search for an island of stability
contributed talk

35. Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, New Hampshire, USA, June 3 - 8, 2007
Superheavy nuclei: theoretical challenges
invited speaker

36. International Workshop on Nuclear Structure NS07: New Pictures in the extended Isospin Space, June 11-14, 2007, Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan
Superheavy nuclei: self-consistency effects and single-particle degrees of freedom
invited talk

37. 2007 Annual Fall meeting of the Division of Nuclear Physics, American Physical Society, October 11, 2007, Newport News, Virginia, USA
Band Termination and Density Functional Theory
contributed talk [12 min]

38. 2007 Annual Fall meeting of the Division of Nuclear Physics, American Physical Society, October 13, 2007, Newport News, Virginia, USA
Hyperdeformation in the cranked relativistic mean field theory
contributed talk [12 min]

39. Fourth International Conference on "Fission and Properties of Neutron-Rich nuclei", November 14, 2007, Sanibel Island, Florida, USA
Relativistic mean field studies of superheavy nuclei

40. DFT-UNEDF workshop "Determination of the Nuclear Energy Functional: Optimization Strategy, Essential Experimental Data and Chi-Squared Mertrics", Joint Institute for Heavy Ion Research, Oak Ridge National Laboratory, January 22, 2008, Oak Ridge, USA,
Terminating states: Can they be used to constraint DFT?
contributed talk [10 min]

41. The 2d LACM-EFES-JUSTIPEN Workshop, Joint Institute for Heavy Ion Research, Oak Ridge National Laboratory, January 23-25, 2008, Oak Ridge, USA.
Hyperdeformation: a microscopic outlook
invited talk [20 min]

42. International conference "Nuclear Structure'08", June 3-6, 2008, East Lansing, Michigan, USA
Hyperdeformation in the cranked relativistic mean field theory: questions and answers
contributed talk [20 min]

43. The 2-nd International Conference "Current Problems in Nuclear Physics and Atomic Energy", June 9-15, 2008, Kiev, Ukraine
Superheavy and rotating nuclei within the framework of relativistic Hartree-Bogoliubov theory
invited talk [30 min]

44. International workshop on "Scaling the heights of the N=Z line above 56-Ni", European Centre for Theoretical Studies in Nuclear Physics and Related Areas, Trento, Italy, September

16-19, 2008
Neutron-proton pairing and other "new" physics in rotating $N \sim Z$ nuclei
keynote speaker [45 min]

45. International conference "Nuclear Structure and Dynamics", Dubrovnik, Croatia, May 4-8, 2009
Covariant Density Functionals: time-odd channel investigated.
contributed talk [20 min]

46. Institute for Nuclear Theory workshop "Effective Field Theories and the Many-Body Problem", March 23 - June 5, 2009, Seattle, USA
Understanding time-odd mean fields in covariant density functional theories
oral presentation [75 min]

47. International conference "Nuclear Structure and Related Topics", Dubna, Russia, June 30 - July 4, 2009
Time-odd mean fields in density functional theories,
invited talk [20 min]

48. Mississippi State University, Research Showcase, College of Arts and Sciences, October 22, 2009
Superheavy nuclei: A journey to the island of stability
conference-type presentation [20 min]

49. JUSTIPEN-EFES workshop on unstable nuclei, RIKEN, Japan, December 7-9, 2009
Covariant density functional studies of time-odd mean fields and fission barriers
oral presentation [30 min]

50. The VI International workshop on direct reactions with exotic beams, Florida State University, Tallahassee, FL, USA, December 16-19, 2009,
The fission barriers in covariant density functional theory: superheavy nuclei and the role of pairing.
oral presentation [20 min]

51. The 4th LACM-EFES-JUSTIPEN Workshop, Joint Institute for Heavy Ion Research, Oak Ridge, Tennessee, USA, Oak Ridge National Laboratory March 15-17, 2010
Fission Barriers in Covariant Density Functional theory
oral presentation [30 min]
JUSTIPEN = Japan-US Theory Institute for Physics with Exotic Nuclei
LACM= nuclear large amplitude collective motion
EFES = JSPS Core-to-Core program "International Research Network for Exotic Femto Systems (EFES)"

52. The second international EURORIB (European Radioactive Ion Beam) conference "EURORIB'10", 06/06/10 - 06/11/10, Lamoura, France.

Heavy and superheavy nuclei in the covariant density functional theory,
oral presentation [20 min]

53. 2010 International Nuclear Physics Conference (INPC 2010), 07/04-07/09/2010, Vancouver, Canada
Spectroscopy of the heaviest elements (Theory)
invited talk at parallel session [25 min]

54. GRETINA Science Collaboration Meeting, 10/14-10/15/2010, Argonne National Laboratory, Physics Division, USA
Superheavy nuclei: theoretical perspectives and suggestions for experiments
invited talk [45 min]

55. University of Aizu-JUSTIPEN-EFES symposium "Cutting-Edge Physics of Unstable Nuclei", 10/10-10/13/2010, Aizu-Wakamatsu, Japan,
Fission barriers in actinides and superheavy nuclei: CDFT perspective.
oral presentation [25 min].

56. Third workshop "Nuclei and Mesoscopic physics", Michigan State University, East Lansing, Michigan, USA, 03/09/2011
Pairing in nuclear systems: open questions
invited talk [60 min]

57. The 5th LACM-EFES-JUSTIPEN Workshop, Joint Institute for Heavy Ion Research, Oak Ridge, Tennessee, USA, Oak Ridge National Laboratory, March 15-17, 2011
Single-particle states in covariant DFT: at and beyond mean field level
oral presentation [30 min]

58. International symposium "Advances in Nuclear Many-Body Theory", Primosten, Croatia, June 7-10, 2011
Single-particle degrees of freedom in covariant density functional theory
invited talk [30 min]

59. Joint ATLAS-HRIBF-NSCL-FRIB User Workshop, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI, USA, August 18-20, 2011
Superheavy nuclei: theoretical perspective
invited talk [25 min] at parallel breakout session "Superheavy elements"

60. YIPQS Long-term workshop "Dynamics and correlations in exotic nuclei (DCEN2011)", Yukawa Institute for Theoretical Physics, Kyoto, Japan, September 20 - October 28, 2011
Spectroscopic quality energy density functionals: problems and solutions.
oral presentation [40 min] given on September 23.

61. YIPQS Long-term workshop "Dynamics and correlations in exotic nuclei (DCEN2011)", Yukawa Institute for Theoretical Physics, Kyoto, Japan, September 20 - October 28, 2011

Fission barriers: open problems.
oral presentation [30 min] given on September 21 in the discussion session on fission barriers.

62. 18^{th} Nuclear Physics Workshop "Marie & Pierre Curie", Kazimierz, Poland, September 28 - October 2, 2011
Recent progress in the study of fission barriers in covariant density functional theory
invited talk [45 minutes]

63. Collaboration Meeting, CAE, Saclay, France, April 10-11, 2012
Single-particle degrees of freedom within the covariant EDF method
oral presentation [60 min]

64. FUSTIPEN topical meeting "The structure of heavy nuclei", GANIL, Caen, France, April 16-17, 2012,
The structure of heavy nuclei in DFT: from actinides to superheavies
invited talk [80 min]

65. FUSHE 2012 - ENSAR-ECOS workshop on FUture SuperHeavy Element Strategy, Erbismuhle - Weilrod, Germany, May 13-16, 2012,
Theory: Ground state properties and the limits of the region of superheavy elements
invited talk [50 min]

66. International conference "Nuclear Structure 2012", Argonne National Laboratory, Lemont, IL, USA, August 13-17, 2012,
Towards spectroscopic quaility energy density functionals
oral presentation [20 min]

67. Low Energy Community Meeting, Argonne National Laboratory, Lemont, IL, USA, August 17-18, 2012
Theory of superheavy elements: current status and challenges.
invited talk [20 min] at working group meeting "Superheavy Elements"

68. The 6th LACM-TORIJIN-JUSTIPEN Workshop,Joint Institute for Heavy Ion Research, Oak Ridge, Tennessee, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 31 - November 2, 2012
Actinides and superheavy elements: pairing, single-particle and rotational properties revisited.
oral presentation [30 min]

69. Fifth international conference on **Fission and Properties of Neutron-Rich Nuclei**, November 4-10, 2012, Sanibel Island, Florida, USA,
Fission of actinides and superheavy nuclei: covariant density functional theory perspective.

invited talk [25 min]

70. Fifth International Workshop on Nuclear fission and Fission-Product Spectroscopy, May 28-31, 2013, Caen, France,
Nuclear fission in covariant density functional theory.
contributed talk [20 min]

71. Department of Energy Comparative Review of Nuclear Theory, Gaithersburg, MD, 22 June, 2013,
Nuclear at extreme conditions: a relativistic study
talk [30 min]

72. 20^{th} Nuclear Physics Workshop "Marie & Pierre Curie", September 25-29, 2013, Kaziemierz, Poland,
Microscopic description of rotation: from ground states to the extremes of ultra-high spin
invited talk [30 min]

73. Institute for Nuclear Theory Program INT-13-3 "Quantitative Large Amplitude Shape Dynamics: fission and heavy ion fusion", September 23 - November 15, 2013 (presentation on October 1, 2013)
Fission in covariant DFT: status and open questions
invited talk [60 min]

74. JUSTIPEN-JUSEIPEN Workshop, December 9-12, 2013, RIKEN Wako campus, Japan
Global performance of covariant energy density functionals: from proton to neutron drip lines
contributed talk [25 min]

75. The 2^d CUSTIPEN Workshop on "Advances in the computational nuclear many-body problems", December 15-17, 2013, Beijing, Peking University, China
Nuclear landscape in covariant density functional theory,
talk [40 min]

76. American Physical Society meeting, April 5-8, 2014, Savannah, Georgia, USA
Reflection asymmetric shapes in covariant density functional theory.
contributed talk [12 min]

77. Fourth workshop "Nuclei and Mesoscopic Physics 2014", Michigan State University, National Superconducting Cyclotron Laboratory, East Lansing, Michigan, USA, May 5-9, 2014
Nuclear energy density functionals: what we can learn about/from their global performance
oral talk [40 min]

78. EBBS2014: Exotic Beam Summer School 2014 at Oak Ridge National Laboratory, July 28

- August 1, 2014
Nuclear structure
invited lecture course [50 + 50 min]

79. Zakopane Conference on Nuclear Physics "Extremes of the Nuclear Landscape", Zakopane, Poland, August 31 - September 7, 2014
Nuclear structure theory of the heaviest nuclei
invited talk [30 min]

80. 4th Joint Meeting of the Nuclear Physics Divisions of the American Physical Society and the Physical Society of Japan, Workshop "Physics Opportunities with High-resolution Spetrometers CAGRA and GRAND RAIDEN", October 7-11, 2014, Hilton Waikoloa Village, Big Island, Hawaii.
Superdeformation and hyperdeformation in the $A \sim 40$ mass region
invited talk [30 min]

81. 4th Joint Meeting of the Nuclear Physics Divisions of the American Physical Society and the Physical Society of Japan, October 7-11, 2014, Hilton Waikoloa Village, Big Island, Hawaii
The competition of particle-vibration coupling and tensor interaction in spherical nuclei
talk [15 min]

82. SERC School on Modern Theories of Nuclear Structure, Department of Physics, Indian Institute of Technology Roorkee, Roorkee - 247667, February 23 - March 3, 2015, India
Nuclear structure in covariant density functional theory
invited course of lectures, consisted of six 75 minutes lectures and one computer session. The titles of the lectures are:
A. **Nuclear structure (part 1): covariant density functional theory - a basis**
B. **Nuclear structure (part 2): testing a nuclear landscape from known to neutron-rich and superheavy nuclei**
C. **Nuclear structure (part 3): single-particle degrees of freedom - at and beyond mena field level**
D. **Nuclear structure (part 4): rotation - from ground states to the extremes of high spin and deformation**
E. **Nuclear structure (part 5): microscopic theory of fission**

83. International symposium "Superheavy nuclei 2015", Texas A&M University, College Station, Texas, March 31 - April 2, 2015, USA
Recent progress in the study of heaviest nuclei in covariant density functional theory
invited talk [20 min (time of presentation) without discussion]

84. International conference "Nuclear Structure and Dynamics III", June 14-19, 2015, Portorose, Slovenia

Covariant energy density functionals: the assesment of global performance across the nuclear landscape,
oral presentation [20 min]

85. International workshop "Interfacing Structure and Reaction Dynamics in the Synthesis of the Heaviest Nuclei" at European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy, September 1-4, 2015
Nuclear structure theory of the heaviest nuclei: achievements and challenges,
invited talk [60 min]

86. YIPQS Long-term workshop "Computational Advances in Nuclear and Hadron Physics (CANHP 2015)", September 21 - October 30, 2015. (attending only the week of October 18 - 24, 2015 dedicated to density functional theories), Kyoto, Japan (YIQPS = Yukawa Institute for Theoretical Physics, Kyoto)
Global performance of the state-of-the-art covariant energy density functionals and related theoretical uncertainties
invited talk [60 min]

87. International workshop "Advances in experimental and theoretical studies of heavy, very heavy and super-heavy nuclei", CEA/SPhN, Saclay, France, 11/16-19/2015 (presented on 11/16/2015)
From actinides to superheavy nuclei: benchmarking theory and addressing theoretical uncertainties.
invited talk [60 min]

88. International workshop "Information and Statistics in Nuclear Experiment and Theory: ISNET-3", ECT* Trento, Italy, November 16-20, 2015
Estimating theoretical uncertainties: from known nuclei to the extremes of isospin and charge
invited talk [40 min]

89. 11^{th} International conference on Clustering Aspects of Nuclear Structure and Dynamics, Napoli, Italy, May 23-27, 2016
High spin structures in the $A \sim 40$ mass region: from superdeformation to extreme deformation and clusterization.
oral presentation [20 min]

90. Institute for Nuclear Theory Program INT-16-2a "Bayesian Methods in Nuclear Physics", June 13 - July 8, 2016 (talk presented on July 7)
The uncertainty quantification in covariant density functional theory
invited talk [60 min]

91. International Conference "Nuclear Structure 2016", Knoxville, Tennessee, USA, July 25-29, 2016
Structure of Superheavy Elements Reexamined

contributed talk [20 min]

92. 23^{th} Nuclear Physics Workshop "Marie & Pierre Curie" "Essential Problems in Nuclear Physics", September 27 - October 2, 2016, Kaziemierz Dolny, Poland
Recent progress in the studies of neutron rich systems within the covariant density functional theory
invited talk [30 min]

93. Symposium "Correlations in nuclei. How far can we go with density functional theory?", November 3, 2016, Munich, Germany
Collective and single-particle phenomena in covariant density functional theory
invited talk [35 min]

94. International workshop "Shapes and symmetries in Nuclei: from Experiment to Theory (SSNET-16)", November 7-11, 2016, Orsay, France
Nuclear shapes in covariant density functional theory: recent results
invited talk [25 min]

95. Symposium on Nuclear Dynamics and Thermodynamics "From the nuclear EOS to Alpha-cluster in Nuclei", Fest -symposium the 80th of Prof. Joseph B. Natowicz, December 11, 2016, Huizhou, China
Cranking the $A = 28 - 50$ $N \sim Z$ nuclei to extreme deformation and clusterization
invited talk [30 min]

96. CUSTIPEN-IMP-PKU workshop on Physics of Exotic Nuclei, December 12-14, 2016, Huizhou, China
Covariant Density Functional Theory: A global Performance and theoretical uncertainties at the limits of nuclear landscape
invited talk [35 min]
CUSTIPEN=
IMP=Institute of Modern Physics, China
PKU=Peking University, China.

97. International workshop "First Physics with the Super Separator Spectrometer S3", March 27-30, 2017, CEA Saclay, France
The structure of heavy and superheavy nuclei with an assessment of theoretical uncertainties
invited talk [30 min]

98. 2017 Stewardship Science Academic Programs Annual meeting, April 12-13, 2017, Naperville, USA
Fission Barriers in Covariant Density Functional Theory: assessing theoretical uncertainties
talk [20 min]

99. International workshop "Probing fundamental interactions by low energy excitations. Advances in theoretical nuclear physics." June 5-9, 2017, Royal Institute of Technology, Stockholm, Sweden,
Predictive power of nuclear theories at nuclear extremes: the limitations and their sources
invited talk [25 min]

100. 3^{rd} Symposium on Superheavy Elements SHE-2017 "Challenges in the studies of superheavy nuclei and atoms", September 10-14, 2017, Kazimierz Dolny, Poland,
Superheavy nuclei in the covariant density functional theory
invited talk [25 min]

101. International workshop "Prospects of the microscopic description of odd-mass nuclei and other multi-quasiparticle excitations with beyond-mean-field and related methods" at European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy, September 25-29, 2017
Single-particle degrees of freedom in covariant density functional theory: the successes and challenges,
keynote speaker [60 min]

102. International Symposium "50 years of Beam", Cyclotron Institute, Texas A&M University, College Station, Texas, USA, November 15-17, 2017
Super- and hyperheavy nuclei in covariant density functional theory
contributed talk [25 min]

103. 2018 Stewardship Science Academic Program (SSAP) Symposium, Washington DC, February 21-22, 2018
Microscopic description of fission in a relativistic framework
talk [20 min]

104. Chengdu-CUSTIPEN workshop on theory of rare nuclear decays, May 13-18, 2018, Chengdu, China,
Rare processes: from light to hyperheavy nuclei
invited talk [35 min]

105. International conference on Nuclear Structure and Related topics 2018 (NSRT18), Burgas, Bulgaria, June 3-9, 2018
From cluster structures to nuclear molecules
invited talk [30 min]

106. International conference "Nuclear Structure 2018", National Superconducting Cyclotorn Lab, East Lansing, MI, USA, August 5-10, 2018
Exploring the Limits of Nuclear Landscape at Extreme Z values
contributed talk [20 min]

107. Humboldt Kolleg BLTP/JINR - KLFTP/CAS Joint Workshop on Physics of Strong Interacting Systems, Saint Petersburg, Russia, September 02-07, 2018
Recent progress in covariant density functional theory: assessing statistical errors
invited talk [25 min]

108. SSNET'18: International Conference on Shapes and Symmetries in Nuclei: from Experiment to Theory, November 5-9, 2018, Gif sur Yvette, France,
Super- and hyperheavy nuclei in CDFT: recent results
invited talk [25 min]

109. The international workshop "Recent advances in nuclear structure physics 2018 (RANSP2018)", Yukawa Institute for Theoretical Physics, Kyoto University, Japan, November 29 - December 3, 2018,
Clusters, nuclear molecules and toroidal shapes in covariant density functional theory
invited talk [45 min]

110. Tsukuba-CCS workshop on "Microscopic theories of nuclear structure and dynamics", Center for Computational Sciences (CCS), University of Tsukuba, Japan, December 10-12, 2018
Statistical errors and parametric correlations of covariant energy density functionals
invited talk [25 min]

111. 2019 Stewardship Science Academic Programs Symposium, Albuquergue, New Mexico, February 19-20, 2019,
Microscopic description of fission in a relativistic framework
talk [20 min]

112. Nuclear Physics Symposium "Challenges in theory of heavy nuclei", University of York, York, England, July 17-20, 2019,
Superheavy elements in covariant density functional theory: present status and challenges
invited talk [30 min]

113. Institute of Nuclear Theory Program INT-19-2a "Nuclear Structure at the Crossroads", University of Washington, Seattle, USA, July 2 - August 2, 2019
Covariant density functional theory: status, challenges and possible links to ab initio theory"
invited talk [45 min]

114. 6^{th} International conference on the Chemistry and Physics of the Transactinide Elements, Wilhelmshaven, Germany, August 25-30, 2019
Heaviest nuclei in covariant density functional theory
invited talk [25 min]

115. XXVI Nuclear Physics Workshop 2019 "Key Problems of Nuclear Physics", Kazimierz Dolny, Poland, September 24-29, 2019
Exploring nuclear exotica at the limits
keynote talk [40 min]

15.2 POSTER PRESENTATIONS

1. International conference "New Nuclear Structure Phenomena in the Vicinity of Closed Shells", Aug. 30 - Sept. 3, 1994, Stockholm-Uppsala, Sweden
Microscopic Structure of High-Spin Spectra of Selected $A \approx 90$ Nuclei near Proton Drip Line

2. XXIV Mazurian Lakes School of Physics, including "High Angular Momentum Phenomena Workshop in honour of Zdislaw Szymanski, Piaski, Poland, Aug. 23 - Sept. 3, 1995
A. Smooth Termination of Collective Rotational Bands in the $A \sim 110 (Z \geq 50, N \sim 60)$ mass region
B. Cranked Relativistic Mean Field Description of Superdeformed Rotational Bands in the $A \sim 80$ and $A \sim 150$ mass regions.

3. Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, New Hampshire, June 15 - June 20, 2003, USA
Critical analysis of rotating $N \sim Z$ nuclei concerning proton-neutron pairing

4. The sixth International conference on Radioactive Nuclear Beams (RNB6), Argonne National Laboratory, Illinois, September 22-26, 2003, USA
Isovector (t=1) versus isoscalar (t=0) scenario for neutron-proton pairing in rotating $N \sim Z$ nuclei

5. International Nuclear Physics Conference INPC2004, Goteborg, Sweden, June 27-July 2, 2004
Dominance of the isovector $(t = 1)$ neutron-proton pairing in rotating $N \sim Z$ nuclei

16 Colloquia and seminars

1. Department of Mathematical Physics, Lund Institute of Technology Lund, Sweden November, 1993
Octupole correlations in rare-earth nuclei

2. Physik-Department der Technischen Universität München, Garching, Germany, July, 1995
Properties of smooth terminating bands in the $A \sim 110$ mass region

3. Department of Mathematical Physics, Lund Institute of Technology, Lund, Sweden, 01/29/1996
Cranked Relativistic Mean Field Description of Superdeformed Rotational Bands

in the $A \sim 150$ mass region

4. Physik-Department der Technischen Universität München, Garching, Germany, 07/9/1996
Cranked Relativistic Mean Field Description of Superdeformed Rotational Bands

5. NORDITA, Copenhagen, Denmark, 11/13/1996
Relativistic Mean Field Description of Rotational Bands

6. Department of Physics, State University of New York at Stony Brook, Stony Brook, New York, USA, 03/11/1998
Rotating nuclei at extreme conditions: Cranked Relativistic Mean Field Description

7. Physik-Department der Technischen Universität München, Garching, Germany, 07/21/1998
Rotating nuclei at the extremes

8. Universita degli Studi di Padova, Dipartimento di Fisica "Galileo Galilei", Padova, Italy, 11/17/1998
Superdeformation at high spin: Cranked Relativistic Mean Field Description

9. Oliver Lodge Laboratory, University of Liverpool, Liverpool L69 3BX, United Kingdom, 11/15/1999
Superdeformed rotating nuclei in the cranked relativistic mean field theory

10. Department of Physics, York University, Heslington, York Y010 5DD, United Kingdom, 11/18/1999
Relativistic mean field theory: what has been learnt about rotating nuclei

11. Institut de Recherches Subatomiques, Unite mixte de Recherche CNRS-IN2P3 et Universite Louis Pasteur, Strasbourg, France, 04/06/2000
Relativistic description of rotating nuclei

12. Physik-Department der Technischen Universität München, Garching, Germany, 07/18/2000
Exotic phenomena in the physics of high-spin states in nuclei

13. Department of Physics, University of Notre Dame, USA, 11/13/2000
Rotating nuclei in the relativistic mean field theory

14. Department of Physics, State University of New York at Stony Brook, Stony Brook, New York, USA, 12/12/2000
Cranked Relativistic Hartree-Bogoliubov theory: application to the rotating nuclei

15. Michigan State University, NSCL/Cyclotron Laboratory, East Lansing, Michigan, USA, 01/17/2001
Cranked relativistic mean field theory: superdeformation, time-odd fields etc.

16. Argonne National Laboratory, Illinois, USA, 01/22/2001
Cranked Relativistic Hartree-Bogoliubov Theory: rotating nuclei in the paired regime

17. Purdue University Calumet, Hammond, Indiana, USA, 03/22/2001
Rotating nuclei at extreme conditions: theoretical outlook

18. Department of Physics and Astronomy, University of Tennessee, Knoxville, USA, 04/16/2001
Time-odd fields in the rotating frame and the moments of inertia

19. Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 04/18/2001
Rotating nuclei in the relativistic mean field theory: on the edge of the N=Z line

20. Department of Physics, Florida State University, Tallahassee, USA, 05/11/2001
Cranked relativistic mean field theory: microscopic understanding of rotation.

21. Department of Physics, University of Notre Dame, USA, 05/24/2001
Rotating $N \sim Z$ nuclei in the conventional models: how strong is evidence for proton-neutron pairing?

22. Argonne National Laboratory, Physics Division, USA, Heavy Ion Discussion Group, 11/12/2001
The basis of relativistic mean field theory

23. Argonne National Laboratory, Physics Division, USA, Heavy Ion Discussion Group, 02/04/2002
Cranked Relativistic Hartree-Bogoliubov Theory: Probing the Gate to Super-Heavy nuclei

24. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 02/08/2002
Proton-neutron pairing in $N \approx Z$ nuclei: do rotating properties provide strong evidence for it?

25. Argonne National Laboratory, Physics Division, USA, 05/02/2002
Covariant Density Functional Theory and Applications to Nuclei at Extremes

26. Department of Physics, University of Notre Dame, USA, 06/10/2002
Probing the gateway to superheavy nuclei

27. Department of Physics, College of Physical and Engineering Science, University of Guelph, Canada, 03/25/2003
Relativistic mean field theory and exotic nuclear phenomena
invited colloquium (60 minutes)

28. Department of Physics, University of Notre Dame, USA, 06/02/2003

Theoretical Nuclear Structure: starting from basic

29. Department of Physics, University of Notre Dame, USA, 06/23/2003
Relativistic Mean Field theory: modern tool of nuclear structure studies

30. A. W. Wright Nuclear Structure Laboratory, University of Yale, USA, 10/21/2003
From Nobelium region towards superheavy nuclei

31. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 02/24/2004
Cranked Relativistic Hartree-Bogoliubov theory: going from nobelium ($A \sim 250$) region towards super-heavy nuclei

32. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 02/24/2004
Dominance of the isovector (t=1) neutron-proton pairing in rotating $N \sim Z$ nuclei

33. Institute of Solid State Physics, University of Latvia, Latvia, 06/15/2004
Hunting superheavy nuclei

34. Department of Mathematical Physics, Lund Institute of Technology, Lund, Sweden, 06/17/2004
Relativistic Hartree-Bogoliubov theory: from nobelium region towards superheavy nuclei

35. Department of Mathematical Physics, Lund Institute of Technology, Lund, Sweden, 06/18/2004
Isovector (t=1) or isoscalar (t=0) neutron-proton pairing in rotating $N \sim Z$ nuclei???

36. Department of Physics, University of Notre Dame, Notre Dame, 10/14/2004
Cranked Hartree-Bogoliubov theory: the journey towards nuclear limits

37. Department of Physics, Florida State University, Tallahassee, USA, 10/22/2004
Superheavy nuclei: theoretical outlook.

38. Department of Physics and Astronomy, Mississippi State University, Starkville, Mississippi, USA, 1/13/2005
Nuclear Limits and Relativistic Hartree Bogoliubov theory
colloqium

39. Department of Physics, San Diego State University, California, USA, 3/4/2005
Nuclei at the Limits: Forget "Schroedinger", let do "Dirac"
colloqium

40. Department of Physics, San Diego State University, California, USA, 3/3/2005
Relativistic Hartree-Bogoliubov (RHB) Theory: Today and in the future.

seminar

41. Physics Division, Argonne National Laboratory, Argonne, Illinois, USA, 03/28/2005
Rotating structures along the N=Z line: what do we really learn from them?
seminar

42. Department of Physics, University of Notre Dame, Notre Dame, USA, 03/30/2005
Nuclei at the limits
colloqium

43. Institute of Solid State Physics, University of Latvia, Latvia, 06/01/2005
Atomic nuclei through the "Relativistic mean field" microscope
seminar [60 min]

44. Department of Physics, University of Tennessee, Knoxville, USA, 02/20/2006
Superheavy nuclei in relativistic mean field theory
seminar [60 min]

45. Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 02/21/2006
Rotating $N \approx Z$ nuclei: proton-neutron pairing and non-termination of rotational bands
seminar [60 min]

46. Physics Tea presentation, Department of Physics and Astronomy, Mississippi State University, USA, 04/20/20
The life and death of rotational bands
40 min

47. Michigan State University, NSCL/Cyclotron Laboratory, East Lansing, Michigan, USA, 05/12/2005
Superheavy nuclei: a microscopic view
invited seminar [80 min]

48. Jackson State University, Jackson, Mississippi, USA, 10/09/2006
Nuclear exotica
invited seminar 45 minites

49. Florida State University, March 15, 2007
Physics in the vicinity of the $N = Z$ line: a current status.
invited seminar [60 min]

50. Physics Division, Argonne National Laboratory, Argonne, Illinois, USA, 09/24/2007
Band Termination revisited
invited seminar [60 min]

51. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 02/07/2008
Nuclear extremes in the relativistic mean field theory: hyperdeformation and superheavy nuclei. Part 1: Hyperdeformation in the $Z = 40 - 58$ part of nuclear chart
invited seminar [60 min]

52. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 02/08/2008
Nuclear extremes in the relativistic mean field theory: hyperdeformation and superheavy nuclei. Part 2: Superheavy nuclei
seminar [60 min]

53. RIKEN Nishina Center for Accelerator-Based Science, Japan, 05/12/2008
The next frontier: hyperdeformation
seminar [60 min]

54. RIKEN Nishina Center for Accelerator-Based Science, Theory group seminar, Japan, 05/16/2008
Few words about time-odd mean fields
seminar [80 min]

55. Yukawa Institute of Theoretical Physics, Kyoto University, Japan, 05/23/2008.
Time-odd mean fields in density functional theories
seminar [60 min]

56. Division of Mathematical Physics, Lund Institute of Technology, Lund, Sweden, 06/18/2008
Hyperdeformation: a microscopic study
seminar [60 min]

57. Physik-Department der Technischen Universität München, Garching, Germany, 08/10/2008
The next frontier - hyperdeformation: A study within the covariant density functional theory
colloqium [60 min]

58. Institute of Solid State Physics, University of Latvia, Latvia, 06/16/2008
Recent progress in the study of rotating nuclei within the relativistic framework
seminar [60 min]

59. Department of Physics, University of Padova, Italy, 09/15/2008
Challenges in high-spin physics: theoretical perspective
seminar [60 min]

60. Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 03/19/2009
Probing nuclear extremes with covariant density functional theory
invited seminar [60 min]

61. Department of Physics and Astronomy, University of Thessaloniki, Greece, 06/19/2009
Recent progress in covariant density functional theory
invited seminar [60 min]

62. Flerov's Laboratory of Nuclear Reactions, Joint Institute for Nuclear Research, Dubna, Russia, 06/29/2009
Superheavy nuclei in covariant density functional theory
invited all-lab scientific seminar [70 min]

63. Institute of Solid State Physics, University of Latvia, Latvia, 07/07/2009
Covariant density functional theory: nuclear magnetism and its role
invited seminar [60 min]

64. Department of Physics, University of Alabama, Tuscalloosa, USA, 01/13/2010.
Covariant density functional theory: the framework and applications to nuclear structure and nuclear astrophysics.
invited colloqium [50 min]

65. Physics Division, Argonne National Laboratory, Argonne, Illinois, USA, 04/26/2010
Recent advances in covariant density functional theory
invited seminar [60 min]

66. Division of Mathematical Physics, Lund Institute of Technology, Lund, Sweden, 05/19/2010
The physics of time-odd mean fields
invited seminar [70 min]

67. Physik-Department der Technischen Universität München, Garching, Germany, 05/27/2010
Understanding superheavies through the prizm of heavies.
invited colloqium [60 min]

68. Institute of Solid State Physics, University of Latvia, Latvia, 06/04/2010
Nuclear burning in neutron star crust
invited seminar [70 min]

69. Department of Physics, University of Tennessee, Knoxville, USA, 10/18/2010
Time-odd mean fields in non-rotating and rotating nuclei
invited seminar [60 min]

70. Institute of Solid State Physics, University of Latvia, Latvia, 06/13/2011
Nuclear energy density functionals: from collective to single-particle degrees of freedom.
invited seminar [60 min]

71. Mississippi State University, Starkville, USA, 11/31/2011

Neutron stars: nuclear burning in the crust.
colloqium [60 min]

72. Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 03/15/2012
Heavy and superheavy nuclei in relativistic framework.
invited seminar [65 min]

73. Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California, USA, 03/19/2012
Recent progress in covariant density functional theory.
seminar [60 min]

74. Department of Physics, University of Tennessee, Knoxville, USA, 04/23/2012
Single-particle degrees of freedom in covariant density functional theory
invited seminar [60 min]

75. Division of Mathematical Physics, Lund Institute of Technology, University of Lund, Lund, Sweden, 05/21/2012,
Nuclear density functional theory: single-particle motion
invited seminar [70 min]

76. Institute of Solid State Physics, University of Latvia, Latvia, 05/30/2012
Superheavy elements: current status and future.
invited colloqium [70 min]

77. Department of Physics, University of Padova, Italy, 06/07/2012
Covariant density functional theory: heavy and superheavy nuclei.
invited seminar [55 min]

78. Institut de Recherches Subatomiques, Unite mixte de Recherche CNRS-IN2P3 et Universite Louis Pasteur, Strasbourg, France, 06/12/2012
Recent progress in covariant DFT: time-odd mean fields and single-particle degrees of freedom
invited seminar [60 min]

79. Mississippi State University, Department of Physics, Starkville, USA, 10/25/2012
Theoretical/computational low-energy nuclear physics: personal perspective [current status and future]
invited seminar [55 min]

80. Washington University in St. Louis, Department of Chemistry, Saint Louis, USA, 11/16/2012
Covariant density functional theory: from single-particle degrees of freedom to fission
invited seminar [55 min]

81. Physics Division, Argonne National Laboratory, Lemont, Illinois, USA, 11/19/2012
Covariant density functional theory: addressing the challenges
invited seminar [60 min]

82. National Superconducting Cyclotron Laboratory, Michigan State University, Lansing, USA, 03/12/2013
Covariant density functional theory: from single-particle to collective degrees of freedom
invited seminar [55 min]

83. Institute of Solid State Physics, University of Latvia, Latvia, 05/22/2013
Theoretical nuclear physics in the age of high performance computing
invited seminar [60 min]

84. Department of Technical Physics, Peking University, Beijing, China, 12/23/2013
Rotating nuclei as a probe of covariant density functional theory
colloquium [80 min]

85. Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China, 12/25/2013
Single-particle degrees of freedom in covariant density functional theory: successes and challenges
seminar [90 min]

86. Department of Physics, University of Notre Dame, Notre Dame, USA, 04/20/2015
Covariant density functional theory: the journey across three-dimensional nuclear landscape
invited seminar [60 min]

87. Department of Physics, West Michigan University, Kalamazoo, MI, USA, 04/21/2015
Covariant density functional theory: a global assesment across nuclear landscape
invited colloquium [60 min]

88. Institute of Solid State Physics, University of Latvia, Latvia, 06/09/2015
Nuclear physics at extremes.
invited colloqium [60 min]

89. University of Tsukuba, Tsukuba, Japan, 07/01/2015
Addressing theoretical uncertainties in nuclear DFT
seminar [90 min]

90. Department of Physics, University of Kyoto, Kyoto, Japan, 07/03/2015
Recent progress in covariant density functional theory
seminar [90 min]

90. Department of Physics, University of Tokyo, Tokyo, Japan, 07/21/2015

The extremes of nuclear landscape in density functional theory
seminar [110 min]

91. Physics Division, RIKEN, Wako, Japan, 07/22/2015
The $N \sim Z$ nuclei: no fingerprints for isoscalar neutron-proton pairing condensates
talk [25 min]

92. Department of Physics, University of Niigata, Niigata, Japan, 07/30/2015
Covariant energy density functionals: global performance and theoretical uncertainties.
seminar [60 min]

93. Dipartamento Fisica, University of Milano, Milan, Italy, 11/23/2015
Nuclear phenomena in covariant density functional theory: at and beyond mean field level.
seminar [60 min]

94. Department of Physics, University of York, York, England, 11/25/2015
Recent progress in covariant density functional theory.
seminar [60 min]

95. Argonne National Laboratory, Physics Division, USA, 12/14/2015
Global performance of Covariant Density Functional Theory
seminar (60 minutes)

96. Cyclotron Institute, Texas A & M University, USA, 03/22/2016
Covariant density functional theory: nuclei at the extremes of nuclear landscape
invited colloqium (75 minutes)

97. Institute of Solid State Physics, University of Latvia, Latvia, 05/18/2016
The interplay of nuclear physics and nuclear astrophysics: some examples.
invited colloqium [60 min]

98. Faculty of Physics, University of Warsaw, Poland, October 3, 2016
Relativistic description of finite nuclei: successes and challenges

99. Department of Technical Physics, Peking University, Beijing, China, 12/19/2016
Covariant density functional theory: the challenges we face
invited seminar [90 min]

100. Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing, China, 12/22/2016
From actinides to superheavy nuclei: covariant density functional theoretical perspective
invited seminar [110 min]

101. Department of Physics, Western Michigan University, April 11, 2017
Neutron-rich systems within the covariant density functional theory: the uncertainty quantifications
invited seminar [60 min]

102. GANIL, Caen, France, September 15, 2017,
From known nuclei to nuclear extremes: a journey within the CDFT framework
invited seminar [90 min]

103. Department of Physics and Astronomy, Mississippi State University, April 2, 2018
Nuclear extremes: from finite nuclei to neutron stars
colloqium [60 min]

104. Institute of Theoretical Physics, Chinese Academy of Sciences, May 10, 2018, Beijing, China
Recent studies in covariant density functional theory
invited seminar [70 min]

105. Department of Technical Physics, Peking University, May 11, 2018, Beijing, China
From finite nuclei to the crust of neutron stars
invited seminar [90 min]

106. Yukawa Institute of Theoretical Physics, University of Kyoto, Kyoto, Japan, 10/05/2018
Covariant density functional theory: from light to hyperheavy nuclei
invited colloquium [70 min]

107. Department of Physics, University of Niigata, Niigata, Japan, 10/10/2018
Recent studies in covariant energy density functional theory
invited seminar [90 min]

108. University of Aizu, Aizu Wakamatsu, Fukushima 965-8580, Japan, 10/12/2018
Nuclear phenomena: CDFT perspective at and beyond mean field levels
invited seminar [90 min]

109. University of Tohoku, Sendai, Japan, 11/16/2018
Nuclear density functional theory: a global view on nuclear chart and nuclear phenomena
invited Graduate Program on Physics for the Universe (GPPU) seminar [2 hours]

110. RIKEN/Tokyo University, Wakoshi, Japan, 12/13/2018
Covariant density functional studies across the nuclear landscape
invited seminar [70 min]

17 Organization of the International conferences or workshops

1. member of organizing committee: Tsukuba-CCS workshop on "Microscopic theories of nuclear structure and dynamics", Center for Computational Sciences (CCS), University of Tsukuba, Tsukuba, Japan, December 10-12, 2018

18 Outreach presentations

1. Presentation of lecture "**Nuclear Physics for Nuclear Astrophysics**" at the MSU meeting for students from the Mississippi School for Mathematics and Science", 10/11/2005.

2. Teacher Reception Presentation at 25th Annual High School Competition, MSU, 02/24/2006

19 Member of advisory boards of international conferences and workshops

1. 19^{th} Nuclear Physics Workshop "Marie Pierre Curie", Kazimierz Dolny, September 2012, Poland.

2. 20^{th} Nuclear Physics Workshop "Marie Pierre Curie", Kazimierz Dolny, September 25-29, 2013, Poland.

3. 21^{th} Nuclear Physics Workshop "Marie Pierre Curie", Kazimierz Dolny, September 23-28, 2014, Poland.

4. XXII Nuclear Physics Workshop "Marie Pierre Curie", September 2227, 2015, Kazimierz Dolny, Poland

5. 6^{th} International Conference on the chemistry and physics of the transactinide elements, Wilhelmshaven, Germany, August 25-30, 2019

20 Chair of the sections at the International conferences or workshops

1. Section "Nuclear structure 10" at the International conference "Nuclear Structure and Dynamics", Dubrovnik, Croatia, May 4-8, 2009.

2. International symposium "Advances in Nuclear Many-Body Theory", Primosten, Croatia, June 7-10, 2011.

3. YIPQS Long-term workshop "Dynamics and correlations in exotic nuclei (DCEN2011)",

Yukawa Institute for Theoretical Physics, Kyoto, Japan, September 20 - October 28, 2011

4. 20^{th} Nuclear Physics Workshop "Marie & Pierre Curie", September 25-39, 2013, Kazimierz, Poland

5. The 2^{d} CUSTIPEN Workshop on "Advances in the computational nuclear many-body problem", December 15-17, 2013, Beijing, Peking University, China

6. American Physical Society meeting, April 5-8, 2014, Savannah, Georgia, USA, section "Nuclear Theory II"

7. Fourth workshop "Nuclei and Mesoscopic Physics 2014", Michigan State University, National Superconducting Cyclotron Laboratory, East Lansing, Michigan, USA, May 5-9, 2014

8. Chair of the session "Nuclear structure" at the International conference "Nuclear Structure and Dynamics III", June 14-19, 2015, Portorose, Slovenia

9. Chair of the session at the International Conference "Nuclear Structure 2016", Knoxville, Tennessee, USA, July 25-29, 2016

10. Chair of the session "Superheavy nuclei" at 23^{th} Nuclear Physics Workshop "Marie & Pierre Curie" "Essential Problems in Nuclear Physics", September 27 - October 2, 2016, Kaziemierz Dolny, Poland

11. Chair of the session "Fission mechanisms" at the 3^{rd} Symposium on Superheavy Elements SHE-2017 "Challenges in the studies of superheavy nuclei and atoms", September 10-14, 2017, Kazimierz Dolny, Poland

12. Chair of the session at the Chengdu-CUSTIPEN workshop on theory of rare nuclear decays, May 13-18, 2018, Chengdu, China

13. Chair of the session at the International conference on Nuclear Structure and Related Topics (NSRT2018), Burgas, Bulgaria, June 3-9, 2018.

14. Chair of the session at Tsukuba-CCS workshop on "Microscopic theories of nuclear structure and dynamics", Center for Computational Sciences (CCS), University of Tsukuba, Tsukuba, Japan, December 10-12, 2018

15. Chair of the session at 6^{th} International conference on the Chemistry and Physics of the Transactinide Elements, Wilhelmshaven, Germany, August 25-30, 2019

16. Chair of the session at XXVI Nuclear Physics Workshop 2019 "Key Problems of Nuclear Physics", Kazimierz Dolny, Poland, September 24-29, 2019

References

List of Publications of A. Afanasjev [2]

21 Review articles

[1] **A. V. Afanasjev**, D. B. Fossan, G. J. Lane and I. Ragnarsson
Termination of Rotational Bands: Disappearance of Quantum Many-body Collectivity
Physics Reports 322 (1999) 1-124

[2] D. Vretenar, **A. V. Afanasjev**, G. A. Lalazissis, and P. Ring
Relativistic Hartree-Bogoliubov Theory: Static and Dynamic Aspects of Exotic Nuclear Structure
Physics Reports 409 (2005) 101-259

[3] **A. V. Afanasjev**,
Isoscalar and isovector neutron-proton pairing
chapter 11 in the book "Fifty Years of Nuclear BCS: Pairing in Finite Systems" (World Scientific Publishing Co, 2013, editors R. A. Broglia and V. Zelevinsky,) p. 138-153, written on invitation of Editors.

[4] **A. V. Afanasjev**,
Rotating nuclei: from ground states to the extremes of spin and deformation, chapter 8 in "Relativistic Density Functional for Nuclear Structure", International Review of Nuclear Physics, vol. 10, p. 305-355, (2016), (World Scientific Publishing Co), Edited by Jie Meng, written on the invitation of Editor.

22 Publications in refereed journals

[5] T. V. Guseva, **A. V. Afanasjev**, J. J. Tambergs and M. K. Balodis,
Residual unpaired-nucleon interaction in ^{154}Eu,
Bull.Acad.Sc.USSR (ser.phys.)[3] 51 (1987) 17-22 (in English),
Izv.Akad.Nauk SSSR (Ser.Fiz.) 51 (1987) 856-862 (in Russian)

[6] **A. V. Afanasjev**, T. V. Guseva and J. J. Tambergs,
Rotational-vibrational model for odd-odd nuclei,
Bull.Acad.Sc.USSR (ser.phys.) 52 (1988) 121-125 (in English)
Izv.Akad.Nauk SSSR (Ser.Fiz.) 52 (1988) 130-135 (in Russian)

[7] M. K. Balodis, **A. V. Afanasjev**, P. T. Prokofjev and J. J. Tambergs,
γ-vibrational band in odd-odd nucleus ^{166}Ho,
Bull.Acad.Sc.USSR (ser.phys.) 52 (1988) 35-40 (in English)
Izv.Akad.Nauk SSSR (Ser.Fiz.) 52 (1988) 2117-2122 (in Russian)

[2] "A. V. Afanasjev" or "Anatoli Afanasjev" are the spellings of my name in the publications

[3] Izv. Akad. Nauk SSSR (ser.phys.) (Russion edition) was translated by American Institute of Physics as Bulletin of Academy of Sciences of USSR (ser.phys.) (English edition)

[8] **A. V. Afanasjev**, T. V. Guseva and J. J. Tambergs,
Rotational-vibrational model of nuclei with allowance for two-quasi-particle states,
Bull.Acad.Sc.USSR (ser.phys.) 53 (1989) 52-55 (in English)
Izv. Akad. Nauk SSSR (Ser.Fiz.) 53 (1989) 54-57 (in Russian)

[9] **A. V. Afanasjev**, D. O. Kalninsh and B. J. Sermulinja,
The radiative loop influence on nuclear reactor active zone characteristics,
Izv. Acad. of Sciences of Latv. SSR (ser.phys. and tech. sc.), 1 (1989) 118-120 (in Russian)

[10] **A. V. Afanasjev**, T. V. Guseva, J. J. Tambergs and M. K. Balodis,
Octupole deformation of nuclei of Eu isotopes
Bull.Acad.Sc.USSR (ser.phys.) 54 (1990) 171-177 (in English)
Izv. Akad. Nauk SSSR (Ser.Fiz.) 54 (1990) 1838-1844 (in Russian)

[11] **A. V. Afanasjev**, T. V. Guseva and J. J. Tambergs,
Rotational model of octupole deformed odd-odd nuclei,
Bull.Acad.Sc.USSR (ser.phys.) 55 (1991) 139-145 (in English)
Izv. Akad. Nauk SSSR (Ser.Fiz.) 55 (1991) 2223-2229 (in Russian)

[12] M. K. Balodis, N. D. Kramer, P. T. Prokofjev, **A. V. Afanasjev**, T. V. Guseva, J. J. Tambergs, K. Schreckenbach, W. F. Davidson, D. D. Warner, J. A. Pinston, P. H. M. van Assche and A. M. J. Spits,
Level structure of the odd-odd nucleus ^{156}Eu,
Nuclear Physics A523 (1991) 261-299

[13] P. T. Prokofjev, L. I. Simonova, M. K. Beitins, M. K. Balodis, **A. V. Afanasjev** and G. L. Rezvaja
Gamma-ray spectra of ^{183}W from the (n,γ) and $(n,n'\gamma)$ reactions
Latvian Journal of Physics and Technical Sciences, v.4 (1993) 3-16

[14] **A. V. Afanasjev**,
Evidence for the existence of reflection asymmetric shape at high spin in the odd-proton ^{151}Pm, ^{153}Eu nuclei,
Journal of Physics G: Nuclear and Particle Physics 19 (1993) L143-L150

[15] **A. V. Afanasjev** and I. Ragnarsson,
Microscopic structure of high-spin spectra of selected $A \sim 90$ nuclei near proton-drip line
Physica Scripta **T 56** (1995) 220-223

[16] **A. V. Afanasjev** and I. Ragnarsson,
Existence of intrinsic reflection asymmetry at low spin in odd and odd-odd mass nuclei in the Pm/Eu region
Physical Review **C 51** (1995) 1259-1264

[17] **A. V. Afanasjev** and I. Ragnarsson,
The high-energy cost for building states with $I \sim 30\hbar$ in $Z > 40,\ N < 50$ nuclei
Nuclear Physics **A 586** (1995) 377-395

[18] S. M. Mullins, S. Flibotte, G. Hackman, J. L. Rodriguez, J. C. Waddington, **A. V. Afanasjev**, I. Ragnarsson, H. R. Andrews, A. Galindo-Uribarri, V. P. Janzen, D. C. Radford, D. Ward, M. Cromaz, J. DeGraaf, T. E. Drake and S. Pilotte,
Strong population of a superdeformed band in ^{142}Eu
Physical Review **C 52** (1995) 99-103

[19] **A. V. Afanasjev** and I. Ragnarsson,
Gradual Loss of Collectivity in Rotational Bands in the $A \sim 110$ ($Z \geq 50,\ N \sim 60$) mass region
Nuclear Physics **A591** (1995) 387-420

[20] **A. V. Afanasjev** and S. Mizutori,
Octupole correlations at medium spin in odd-proton ^{153}Eu nucleus
Zeitschrift für Physik A: Hadrons and Nuclei, 353 (1995) 267-271

[21] **A. V. Afanasjev**, J. König and P. Ring
Cranked relativistic mean field description of superdeformed bands in ^{83}Sr,
Physics Letters B 367 (1996) 11-16

[22] **A. V. Afanasjev**, I. Ragnarsson and J. M. Sears,
Rotational Bands with $\pi g_{9/2}^{-2}$ Structure in $Z \geq 50$, $N \sim 56 - 65$ Nuclei,
Acta Physica Polonica B, 27 (1996) 187-195

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Shell-Model Influence in the Rotational Nucleus ^{86}Mo
Physical Review C 54 (1996) 117-124

[24] I. Ragnarsson, **A. V. Afanasjev** and J. Gizon,
Coexistence of terminating bands and more collective bands in the $A \sim 100$ region of nuclei,
Zeitschrift für Physik A: Hadrons and Nuclei, A355 (1996) 383-387

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The coexistence of Highly-deformed, Superdeformed and Terminating Bands in the $A \sim 135$ ($Z = 57 - 61$, $N = 72 - 78$) mass region
Nuclear Physics A 608 (1996) 176-201

[26] **A. V. Afanasjev**, J. König and P. Ring
Superdeformed Rotational Bands in the $A \sim 140 - 150$ Mass Region: A Cranked Relativistic Mean Field Description
Nuclear Physics A 608 (1996) 107-175

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Lifetime measurements of strongly deformed rotational bands in ^{133}Pm
Physical Review C 54 (1996) 1057-1069

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Smooth termination of intruder bands in $^{109}_{51}$Sb
Physical Review C 54 (1996) 1598-1609

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Collective structures and smooth band termination in ^{109}Sn
Zeitschrift für Physik A: Hadrons and Nuclei, A 356 (1996) 235

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Physics Letters B 392 (1997) 18

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Nuclear structure of ^{183}W studied in (n,γ), $(n,n'\gamma)$ and (d,p) reactions
Nuclear Physics A 614 (1997) 183-216

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Identification of excited states in doubly-odd ^{110}Sb: Smooth band termination
Physical Review C 55 (1997) R2127-R2131

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High-spin spectroscopy of $^{116}_{52}$Te
Physical Review C 55 (1997) 2290-2304

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Nuclear levels in ^{187}W
Nuclear Physics A 619 (1997) 1-48

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V. Afanasjev and I. Ragnarsson,
Band terminations in valence-space and core-excited configurations in ^{102}Pd
Acta Phys. Hung. N.S. 6 (1997) 265-269

[36] **A. V. Afanasjev**, G. Lalazissis and P. Ring,
Cranked Relativistic Mean Field Description of Superdeformed Rotational Bands
Acta Phys. Hung. N.S. 6 (1997) 299-304

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Physics Letters B 410 (1997) 95-102

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Physical Review Letters 79 (1997) 1233-1237

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Progress in Particle and Nuclear Physics, vol. 38 (1997) 137-146

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Physical Review C 57 (1998) R1-R5

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From collective behaviour to oblate terminating states in A similar to 100 Ru and Pd nuclei
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N. Wilson, **A. V. Afanasjev** and I. Ragnarsson
Smooth Termination of Rotational Bands in ^{62}Zn: Evidence for a Loss of Collectivity
Physical Review Letters, 80 (1998) 2558-2561

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Relative properties of smooth terminating bands
Nuclear Physics A 626 (1998) 580-596

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High-spin states, particle-hole structure, and linked smooth terminating bands in doubly odd ^{112}Sb.
Physical Review C 58 (1998) 127-149

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Physics Letters B 437 (1998) 35-43

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Nuclear Physics A 634 (1998) 395-440

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