

Institute of Mathematics, Polish Academy of Sciences
ul. Śniadeckich 8, 00-656 Warszawa, POLAND
e-mail: jagrab@impan.pl

Web of Science Researcher ID:K-1248-2013
ORCID ID: 0000-0001-8715-2370

CURRICULUM VITAE

I. PERSONAL DATA

1. **Name:** Janusz Roman Grabowski
2. **Date and place of birth:** April 30, 1955, Stalowa Wola (Poland).
3. **Address:** ul. Karola Borsuka 5/7, 02-793 Warsaw, POLAND
4. **Phone:** +48 604188222
5. **Position:** Professor at the Institute of Mathematics, Polish Academy of Sciences: Chair of the Mathematical Physics and Differential Geometry Department.

II. EDUCATION

1. **Master of Art (1978)**, Mathematics, Warsaw University.
2. **Doctor of Philosophy (1982)**, Mathematics, Warsaw University, Thesis: *Lie algebras of vector fields on manifolds*.
3. **Habilitation (1993)**, Mathematics, Warsaw University, Thesis: *Diffeomorphism groups infinite-dimensional Lie algebras over differentiable manifolds*.
4. **Professor Title (2001)**, Mathematics, The President of the Republic of Poland.

III. RESEARCH INTERESTS

- Differential Geometry and Supergeometry, Mathematical Physics.

IV. EMPLOYMENT HISTORY

1. **Assistant Professor**, Warsaw University, Institute of Mathematics, (1978-82).
2. **Associate Professor**, Warsaw University, Institute of Mathematics, (1982-93).
3. **Professor**, Warsaw University, Institute of Mathematics, (1993-2001).
4. **Full Professor**, Institute of Mathematics, Polish Academy of Sciences, since 2001.
5. **Full Professor**, Faculty of Mathematics and Natural Sciences, College of Sciences, Cardinal Stefan Wyszyński University, Warsaw, (2009-2012).

V. GRANTS AND FELLOWSHIPS

- 1987-89, Alexander von Humboldt Fellowship (Tübingen, Germany)

- 1993-1995, grant of the Polish Research Committee (KBN) Nr 2 P301 046 03, *Structures of local Lie algebras*.
- 1995-1998, grant of the Polish Research Committee (KBN) Nr 2 P03A 074 10, *Infinite-dimensional Lie algebras*.
- 1999-2000, promoters grant of the Polish Research Committee (KBN) Nr 2 P03A 039 16, *Gabor frames and affine frames* (for Dr. P. Wojdyło).
- 1999-2002, grant of the Polish Research Committee (KBN) Nr 2 P03A 031 17, *Brackets-constructions, properties, applications*.
- 2003-2006, grant of the Polish Ministry of Scientific Research Nr 2 P03A 020 24, *Algebraic structures in geometry and physics*.
- 2006-2009 grant of the Polish Ministry of Science and Higher Education Nr N201 005 31/0115, *Super-algebras and graded differential geometry with applications*.
- 2010-2013 grant of the Polish Ministry of Science and Higher Education Nr N N201 416839, *Differential geometry of graded bundles*.
- Marie Skłodowska-Curie individual Fellowships European, European Commission, 01.09.2015 - 31.08.2017, scientific coordinator.
- 2012-2015 grant HARMONIA of the Polish National Science Centre DEC-2012/04/M/ST1/00523, *Lie systems: theory, generalizations applications*.
- 2013-2018 grant MAESTRO of the Polish National Science Centre DEC-2012/06/A/ST1/00256, *Geometry of jets and field theories*.
- 2017-2022 grant HARMONIA of the Polish National Science Centre, *Lie systems and selected methods of Lie theory in differential equations*.

VI. PROMOTED DOCTORS OF PHILOSOPHY

1. Dr. Piotr Stachura, 1999, Thesis: *Differentiable groupoids and their C^* -algebras*.
2. Dr. Piotr Wojdyło, 2001, Thesis: *Gabor frames and affine frames. Their geometry and applications*.
3. Dr. Mikołaj Rotkiewicz, 2004, Thesis *On n -Lie algebras*.
4. Dr. Michał Józ wikowski, 2011, Thesis *Optimal control on quasi-Lie algebroids*.

VII. ORGANIZATION OF WORKSHOPS AND CONFERENCES (since 2010)

- Roads to Reality with Roger Penrose, Warszawa-Kraków, 17-21.05.2010, member of the Organizing Committee.
- Poisson Geometry in Mathematics and Physics, IMPA, Rio de Janeiro (Brazil), 24.07 - 01.08.2010, member of the Advisory Committee.
- Geometry of Manifolds and Mathematical Physics, to celebrate the 80th birthday of Włodzimierz Tulczyjew - Polska, Kraków, 27.06-01.07. 2011, member of the Scientific Committee.

- New Developments in Geometric Mechanics: Discrete and Continuous Settings, Warszawa, 11-16.12.2011, organizer of the workshop.
- Geometry of Mechanics - Poland, Warszawa, 19-26.06.2011, organizer of the workshop.
- Covariant Field Theories I, Warszawa, 3-10.06.2012, organizer of the workshop.
- Covariant Field Theories II, Warszawa, 7-14.11.2012, organizer of the workshop.
- ESF Follow-Up Strategic Meeting, Banach Center, Warszawa, 13-16.02.2012, co-conventor.
- Workshop on Graded Algebra and Geometry, Luxembourg, 4-8.12.2012, member of the Scientific Committee.
- Lie systems: theory, generalizations, applications I, Banach Center, Warszawa, 20-24.05.2013, organizer of the workshop.
- Lie systems: theory, generalizations, applications II, Banach Center, Warszawa, 22-26.09.2014, organizer of the workshop.
- III Meeting on Lie systems, Poland, Warszawa, Banach Center, 21-26.09.2015, organizer of the workshop.
- 50th Seminar Sophus Lie - Poland, Będlewo, 25.09.-01.10.2016, organizer of the conference.
- Classical and Quantum Physics: Geometry, Dynamics and Control. 60 Years Alberto Ibort Fest, 5 - 9 March, Madrid 2018, member of the Scientific Committee.
- Homotopy algebras, deformation theory and quantization, 16.09.2018 - 22.09.2018, Będlewo (Poland), organizer of the conference.
- Supergeometry, supersymmetry and quantization, University of Luxembourg, December 16-19, 2019, member of the Scientific Committee.
- XXXIX Workshop on Geometric Methods in Physics, Poland, Biaowiea 28.06.-02-07., 2021, organizer of the workshop.
- LOOPS'23, Poland, Będlewo, 25.06.2023 - 02.07.2023 (in preparation), organizer of the conference.

VIII. PLENARY AND INVITED CONFERENCE TALKS (since 2016)

- *Weighted groupoids and algebroids with applications*, invited talk at the conference Workshop on Poisson Geometry and Mathematical Physics, China, Tianjin, Chern Institute, 4-8.01.2016.
- *Introduction to graded bundles*, invited talk at the conference 1st-International Conference on Differential Geometry, Morocco, Fez, 11-15.04.2016.
- *Introduction to the theory of graded bundles*, mini course at the school 10th International School on Geometry, Mechanics and Control, Spain, Miraflores, 20-24.06.2016.
- *Entanglement measure for composite systems of indistinguishable particles*, poster at the conference Quantum communication Measurement and Computing, Singapore, NUS, 4-6.07.2016.

- *Geometry of quantum systems*, invited talk at the conference Geometria é Física, a geometrical vision of physics, Italy, San Rufo, 11-13.07.2016.
- *Mechanics on graded bundles*, invited talk at the conference XXV International Fall Workshop on Geometry and Physics, Madrid, August 29th-September 2nd, 2016.
- *Graded geometry and field theory*, invited talk at XIXth International Conference on Geometry, Integrability and Quantization - Bulgaria, Varna, 1-8.06.2017.
- *Geometric Mechanics a la Tulczyjew on algebroids*, invited talk at the 61st Souriau Colloquium - France, Amboise, 25-10.06.2017
- *Introduction to graded manifolds*, a mini-course at the school Geometry of PDEs and Secondary Calculus - Italy, Lizzano in Belvedere, 20-31.07.2017
- *Splitting theorem for colored supermanifolds*, invited talk at the conference "Supergeometry and Applications", December 14-15, 2017, University of Luxembourg.
- *On Lies result about integrability of vector fields by quadratures*, contributed talk at the conference Dynamics and integrability of nonholonomic and other non-Hamiltonian systems, 24-27 January, 2018 - Dipartimento di Matematica "Tullio Levi-Civita", Università degli Studi di Padova.
- \mathbb{Z}_2^3 -*supermanifolds*, invited talk at the conference Classical and Quantum Physics: Geometry, Dynamics and Control. 60 Years Alberto Ibort Fest, 5 - 9 March, Madrid 2018.
- *On a Lies theorem about integrability by quadratures*, invited talk at the conference Group Analysis of Differential Equations and Integrable Systems, Ninth Workshop (June 10-14, 2018, Larnaca, Cyprus)
- *On a Lies theorem about integrability of quadratures*, contributed talk at the conference The 32nd International Colloquium on Group Theoretical Methods in Physics (Group32), Czech Technical University in Prague, Czech Republic, 9-13.07.2018.
- *Solvability implies integrability*, plenary talk at the conference XXVII International Fall Workshop on Geometry and Physics, Sevilla (Spain), 3-7 September 2018.
- *Remarks on contact geometry*, plenary talk at the conference Poisson Geometry and Higher Structures, Istituto Nazionale di Alta Matematica, Roma (Italy), 10-14 September, 2018.
- *On integrability in quadratures*, plenary talk at the conference Operators, Functions and Systems of Mathematical Physics - Azerbaijan, Baku, 9-15.06.2019.
- *Tangent and cotangent loopoids*, plenary talk at the conference LOOPS2019 - Hungary, Budapest, 7-13.07.2019.
- *Lie groupoids in information geometry*, plenary talk at the conference Quantum Mechanics and Applications - Spain, Grajera, 23-30.06.2019.
- *Introduction to graded bundles*, mini-course at 6th Workshop on Topics in Theoretical Physics - Iran, Tabriz, 15-22.09.2019.
- *Contact Courant algebroids*, plenary talk at the conference Supergeometry, supersymmetry and quantization, University of Luxembourg, December 16-19, 2019.

- *Graded bundles in geometry and physics*, mini-course at XXXIX Workshop on Geometric Methods in Physics- Poland, Biaowiea 28.06.-02-07.2021.

IX. TEACHING EXPERIENCES

- More than 20 years of teaching in the Faculty of Mathematics, Informatics and Mechanics, Warsaw University: lectures and exercises on Calculus I,II, III, Functional Analysis, Differential Geometry, Analytical Mechanics, etc.
- Classes on Mathematics (Linear Algebra and Calculus) in the Faculty of Management and Administration, Warsaw University.
- Seminars on Differential Geometry and Mathematical Methods of Physics at the Institute of Mathematics, Polish Academy of Sciences.
- Seminars on Geometry and Differential Equation at the Institute of Mathematics, Polish Academy of Sciences.
- Courses in Probability and Mathematical Statistics, Differential Geometry, and Analysis on Manifolds in the Faculty of Mathematics and Natural Sciences, College of Sciences, Cardinal Stefan Wyszyński University, Warsaw.

X. MEMBER OF EDITORIAL BOARDS

- *Banach Center Publications* (Warsaw) - Managing Editor (2006-2010).
- *Dissertationes Mathematicae* (Warsaw) - Editor (since 2010).
- *Extracta Mathematicae* (Universidad Badajoz, Spain) (since 2006).
- *Journal of Geometric Mechanics* (AIMS, USA) (since 2008).

XI. OTHER EXPERIENCES

- **The Chair of the mathematical panel of the European Research Council** (PE1) of Starting Grants, European Research Council 2010/2011, 2011/2012 and 2012/2013.
- **Scientific Secretary of the Stefan Banach International Mathematical Center**, 2006-2009.
- **Member of the EPDI panel** - the post-doc panel of the European Post-Doc Institutes.
- **The Conventor of the Polish-Spanish** joint research project within a cooperation agreement between PAN and CSIC (Consejo Superior de Investigaciones Cientificas) for the years 2009-2010 and 2011-2012, "Geometry of constraints and control".
- **Member of the Scientific Council** of the Center for Theoretical Physics, Polish Academy of Sciences, 2015-2018.
- **Member of the Scientific Council** of the Institute of Mathematics, Polish Academy of Sciences 2003 - present.
- **Disciplinary Spokesman** in the Institute of Mathematics, Polish Academy of Sciences, 2019 - present.

XII. DISTINCTIONS

- Gold Cross of Merit, The President of the Republic of Poland 2008.