

## ALEKSY TRALLE, PROFESSIONAL CV

**Born 21.04.1958 in Minsk**

**Polish citizen**

### 1 Academic degrees

Professor of Mathematics (title given by the President of Poland), 2002

Habilitation, Wrocław University, Poland, 1992

Ph.D., Belarusian University, Minsk, Belarus, 1985

### 2 Education

M.Sc. (Mathematics), with honors, Belarusian University, Minsk, Belarus, 1980

### 3 Professional experience

University of Warmia and Mazury, Olsztyn, Poland

Ordinary Professor (since 2010), Extraordinary Professor (2002-2010), Associate Professor (1998-2002)

Energy Solutions, Warsaw, Poland

Coordinator of research group (2017-2018)

Wrocław University, Wrocław, Poland

Assistant Professor (1996-1998)

Szczecin University, Szczecin, Poland

Assistant Professor, Associate Professor (1990-1996)

Belarusian State University, Minsk, Belarus

Research Assistant Professor (1988-1990), Instructor (1985-1990)

### 4 Selected research grants and visiting professor appointments

- Institute of Mathematical Sciences (Chennai, India), Spring 2025
- National Science Center research grant, 2019-2023
- IHES (Bur-sur-Yvette, France), Fall 2019, Fall 2008
- Institute of Mathematical Sciences (Chennai, India), Fall 2011
- Max Planck Institut für Mathematik (Bonn, Germany), Fall 2009, 1998/1999
- MFO (Oberwolfach), Germany, Research in Pairs program, one month in 1996, 1999, 2005

- Polish Ministry of Science research grants (2001-2002, 2006-2009)
- Mathematical Institute, Polish Academy of Science (Warsaw), 1996/1997, Fall 2007

## 5 Selected addresses to conferences

### Recent talks:

- *Standard Clifford-Klein forms and Lie algebra decompositions*, 8-th Tunisian-Japanese conference "geometric and harmonic analysis on homogeneous spaces and applications", Hammamet, Tunisia, 2025
- *On standard Clifford-Klein forms*, Glances at Manifolds 2025, Kraków, Poland
- *A solution of the standard compact Clifford-Klein form problem*, Chennai Mathematical Institute Seminar, India, 2025
- *Orbifold constructions of Sasakian manifolds and applications*, Prague Geometry Seminar, Charles University, Prague, Czechia, 2024.
- *Proper actions of non-virtually abelian groups vs  $SL(2, R)$ -actions on homogeneous spaces*, Zariski Dense Subgroups, Number Theory and Geometric Applications, ICTS, Bangalore, 2024
- *Sasakian structures on Smale-Barden manifolds*, Spanish-Polish Mathematical Meeting, Łódź, 2023
- *On negative Sasakian structures*, Differential geometric structures and applications, Haifa, Israel, 2023
- *Stretched non-positive Weyl connections on solvable Lie groups*, Lie Theory: Frontiers, Algorithms and Applications, Prato, Italy, 2023
- *Toral rank conjecture for  $c$ -Kähler manifolds*, Toral Rank Conjecture, Marburg, Germany, 2022
- *Compact Clifford-Klein forms*, IHES (Bur-sur-Yvette), France, 2020
- *Homology Smale-Barden manifolds with  $K$ -contact and no Sasakian structures*, Rie-Main in Contact, Cagliari, Italy, 2018
- *On relativistic space form problems*, Geometric Structures and Interdisciplinary Applications, Haifa, Israel, 2018
- *Hirzebruch's proportionality principle and amenable Clifford-Klein forms*, Symmetric spaces and their generalizations III, Levico Terme, Italy, 2017
- *Chern's contribution to the Hopf problem*, (Non)existence of complex structures on  $S^6$ , Marburg, Germany, 2017
- *Smale-Barden manifolds with  $K$ -contact and Sasakian structures*, Foliations 2016, Będlewo, Poland, 2016

- *Homology Smale-Barden manifolds with K-contact and Sasakian structures*, Higgs Bundles, ICTS, Bangalore, India, 2016
- *Metric aspects of contact manifolds*, Glances at Manifolds, Kraków, Poland, 2015
- *Proper  $SL(2)$ -actions on homogeneous spaces*, Generalizations of symmetric spaces, Nachsholim, Israel, 2015
- *Clifford-Klein forms of some homogeneous spaces*, Non-associative algebras and Lie Theory, Oaxaca, Mexico, 2015

**Conferences in the past:** Seminar Sophus Lie, Marburg, Germany, 2014; Group actions with applications in Geometry and Analysis, Reims, France, 2013; Symmetric Spaces and their Generalizations II, Levico Terme, Italy, 2012; GESTA workshop "New trends in symplectic and contact topology", Castro Urdiales, Spain, 2011; Symmetric Spaces and their Generalizations, Levico Terme, Italy, 2010; Bratislava Topology Symposium, Bratislava, Slovakia, 2009; Baltic-Nordic workshop "Algebra, Geometry and Mathematical Physics", Göteborg, Sweden, 2007; GESTA Workshop on symplectic and contact topology, Madrid, Spain, 2006; Algebraic Topology in Malaga, Malaga, Spain, 2003; Algebraic Topology and Singularities, CIRM, Luminy-Marseille, France, 2002; New Techniques in Topological Quantum Field Theory, Calgary, Canada, 2001.

## 6 Selected invitations to research institutions

IMPA (Rio de Janeiro), Banff International Research Station (Canada), University of Trento (Italy), Isaak Newton Institute (Cambridge), Institute Henri Poincaré (Paris), ICTS, Bangalore (India), IPAM (University of California at Los Angeles, USA) University of Florida at Gainesville (USA), Universidad Complutense de Madrid, University of Aberdeen, Université Libre de Bruxelles, Max Planck Institut für Mathematik (Bonn), Max Planck Institute for Mathematics in the Sciences (Leipzig), Institute for Mathematical Sciences, Chennai (India), University of the Basque Country (Bilbao), University of Zaragoza, University of Montpellier, Humboldt University (Berlin)

## 7 Lecture courses in research institutions

Mini-course "Topology of symplectic manifolds", Institute of Mathematical Sciences, Chennai, India, 2010.

Mini-course "Topology of Sasakian manifolds and K-contact manifolds", 46 Winter School *Geometry and Physics*, Srni, Czechia, 2026

## 8 Ph.D. students

Piotr Jastrzębski (Olsztyn, 2015), Maciej Bocheński (Olsztyn, 2014), Artur Woike (Olsztyn, 2011), Anna Szczepkowska (Łódź, 2010), Jarek Kędra (Wrocław, 2000), Zofia Stępień (Warsaw, 1999).

## 9 Editorial work

- **Journal of Fixed Point Theory and Applications (Birkhäuser)**, Associate Editor, since 2006
- **Banach Center Publications**, vols. 93(2011), 45(1997), co-editor
- **J. Symplectic Geometry** 3(4)(2005), guest co-editor

## 10 Selected teaching activities

Graduate courses: Riemannian geometry; Symplectic geometry; Einstein manifolds; Lie groups; Morse theory, Information Geometry, Topological Data Analysis.

## 11 Research expertise

- Expert of the Evaluation Commission of the Polish Ministry of Higher Education and Science, 2025
- Expert of the Israel Science Foundation, Israel, 2020
- Mathematical Committee of the Polish Academy of Science, Member, 2007-2011, 2016-2020
- Expert of the National Research Center (NCN), 2015
- European Science Foundation Research Network Programme "Contact and Symplectic Topology" (CAST) - Member of the Steering Committee, 2010-2015
- more than 40 reviews of Ph. D. dissertations, habilitations and professor nominations
- referee of various mathematical journals, among them **Bull. London Math. Soc.**, **J. London Math. Soc.**, **J. Geom. Physics**, **Internat. Math. Res. Notices**, **Annals Global Anal. Geom.**, **Geometriae Dedicata**, **J. Physics A**, **Internat. J. Geom. Methods Modern Phys.**, **Proc. Amer. Math. Soc.**, **Different. Geom. Appl.**, **Fundamenta Math.**, **Revista Mat. Iberoamericana**, **Commun. Contemp. Math.**, **Transformation Groups**, **Math. Proc. Cambridge Phil. Soc.**

## 12 Service to the academic community

- President of the Olsztyn Branch of the Polish Mathematical Society, service 2025-2027, 2004-2010.
- International conference *Frontiers of Lie Theory: computational aspects and applications*, Banach Center, Będlewo, Poland, 2025, co-organizer

- Member of the EMU S. Kovalevsky grant jury for the participation in ICM-22
- Member of the Jury of the Marcinkiewicz award for the best master's thesis in Poland
- Reviewer of Zentralblatt f. Math.
- Program of the ICTS (Bangalore, India) *Zariski dense subgroups and their number-theoretic and geometric applications*, Bangalore, India, 2020 (2024), co-organizer
- International conference *Dirac operators in Riemannian geometry and analysis - in memory of Thomas Friedrich*, Banach Center, Będlewo, Poland, 2019, co-organizer
- International *Workshop on almost-hermitian and contact geometry*, Banach Center, Będlewo, Poland, 2015, co-organizer
- International Conference *Glances at Manifolds*, Kraków, 2015, co-organizer
- Polish Mathematical Society, Member of the Governing Board, service 2014-2016
- CAST Workshop on symplectic topology (with focus on open problems), Łódź, 2011, co-organizer
- Polish Mathematical Society Annual Meetings: Kraków, 2019 - Member of the Scientific Committee, Olsztyn, 2016, Olsztyn, 2010, Częstochowa, 2008, Gdańsk 2006 - Member of the Program Committee
- Baltic-Nordic workshops *Algebra, Geometry and Mathematical Physics*, Będlewo, 2009, Tartu 2008, co-organizer
- International Conference *Symplectic Topology*, Stare Jabłonki, 2004
- International Conference *Homotopy and Geometry* Banach Center, Warsaw, 1997
- Member of the Jury of the Banach Award of the Polish Mathematical Society and the Jury of the Award for Young Mathematicians, 2006-2017
- Deputy Dean of the Department of Mathematics and Computer Science, University of Warmia and Mazury in 2002-2004, 2012-2016, 2016-2020.
- Chairman of the Research Council in Mathematics at the University of Warmia and Mazury, 2020-2022.

## 13 Awards

KEN Medal (from the Ministry of National Education of Poland), 2015; Saint Jacob's Award (Mayor of Olsztyn Award, 2008); Silver Cross of Merit (order given by the President of Poland), 2004; Polish Minister of Education research award, 1998; Polish Academy of Sciences research award, 1992.