

Short Curriculum vitae

Personal record

Name: Alexander Premet

Date of birth: July 15, 1955

Nationality: British

Marital status: married

Mailing address: 14 Oakleigh Road, Cheadle Hulme, SK8 6SP, UK (home);

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Education

Minsk Pedagogical Institute (1973-1977)

Institute of Mathematics of Belorussian Academy of Sciences (1980-1983).

Qualifications

1977 Diploma in Mathematics and Teaching of Mathematics, Minsk Pedagogical Institute, BSSR.

PhD 1984 Mathematics, Institute of Mathematics of Belorussian Academy of Sciences, Minsk. (Dissertation Quadratic elements of algebraic groups and Lie algebras of Cartan type"; scientific advisor Professor A.E. Zalesskii).

Present appointment

Professor of Pure Mathematics at the University of Manchester.

Published papers.

1. Simple Lie algebras of small characteristic: II. Exceptional roots. *J. Algebra*, 216, 1999, 190-301 (with H. Strade).
2. Simple Lie algebras of small characteristic: III. The toral rank 2 case. *J. Algebra*, 242, 2001, 236-337 (with H. Strade).
3. Block representation type of reduced enveloping algebras. *Trans. Amer. Math. Soc.*, 354, 2002, 1549-1581 (with I. Gordon).
4. Special transverse slices and their enveloping algebras. *Advances in Math.*, 170, 2002, 155 (with an Appendix by S. Skryabin).
5. Primitive ideals, non-restricted representations and finite W-algebras, Special issue of *Moscow Mathematical Journal* celebrating the 50th birthday of Victor Ginzburg, 7, No. 4, 2007, 743-762.
6. The congruence kernel of an arithmetic lattice in a rank one algebraic group over a local field, *J. Reine Angew. Math.*, 623, 2008, 43-72 (with A. Mason, B. Sury and P. Zalesski).
7. Simple Lie algebras of small characteristic: VI. Completion of the classification, *J. Algebra*, 320, 2008, 3559-3604 (with H. Strade).
8. The Recognition Theorem for Graded Lie Algebras in Prime Characteristic, *Memoirs of the American Mathematical Society*, 197, AMS, 2009, 145 pages (with G. Benkart and T. Gregory).
9. On trace forms of Lie algebras of type E8, an Appendix to "Vanishing of trace forms in low characteristic", by Skip Garibaldi, *Algebra and Number Theory*, 3, No. 5, 562-566.
10. Commutative quotients of finite W-algebras, *Advances in Math.*, 225, 2010, 269-306.
11. Modular Lie algebras and the GelfandKirillov conjecture, *Inventiones Math.*, 181, 2010, 395-420.

12. Enveloping algebras of Slodowy slices and Goldie rank, Special issue of Transformation Groups” celebrating the 85th birthday of T.A. Springer, 16, No. 3, 2011, 857-888.

Total number of published papers: 48.

PhD supervision.

Six of my PhD students have successfully completed their programmes: Marines Guerreiro (1997), Alice Auld (2001), Paul Levy (2003), Rudolf Tange (2005), Fathia Arwini (2007) and Lewis Topley (2013).

Talks in Congresses

I spoke at the following conferences by invitation of their organizers:

1984, 1990 National (USSR) scientific school Lie Algebras and Their Applications in Mathematics and Physics”

1982, 1984, 1986 National (USSR) Algebraic Conference.

1987 Conference Modular Lie Algebras” (Gorky, USSR).

1988 International algebraic symposium in Alma-Ata, USSR.

1989 International algebraic conference in Novosibirsk, USSR.

1989 Siberian school Algebra and Analysis ” (Lake Baikal).

1991 Oberwolfach conference Finite-dimensional Lie algebras” Oberwolfach, Germany.

1991 International algebraic conference in Barnaul, USSR.

1992, 1993 UC Conference Lie Algebras and Their Representations.

1995 International conference in honour of R.E. Block in Riverside, California.

1995 Conference Memoriam: Brian Hartley in Manchester.

1995 International seminar on representation theory Strasbourg, France.

1995 Conference Representations of $GL(n)$ and finite-dimensional algebras, London.

1996 International algebraic conference Moscow, Russia.

1996 International conference on group theory, Bad Honnef, Germany.

1997 NATO ASI meeting on representation theory in Cambridge.

1997 European school on representation theory Willebadessen, Germany.

1998 British Mathematical Colloquium in Manchester.

1998 UEA conference Permutation Groups in Norwich.

1998 International conference on representation theory Shanghai, China.

1998 International conference Algebraic Representation Theory, Aarhus, Denmark.

1998 North British Quantum Groups Colloquium in Lancaster.

1999 Durham symposium on quantum groups.

2000 International conference Geometric Representation Theory” Bielefeld, Germany.

2000 International conference in honour of J.M. Osborn Madison, Wisconsin.

2001 Oberwolfach meeting Algebraic Groups” Oberwolfach, Germany.

2001 Warwick conference on quantum groups.

2001 Algebra Days in Rheims, France.

2001 Algebraic conference in Sao Pedro, Brazil.

2002 TMR-Workshop on representation theory in Bielefeld, Germany.

2002 KIAS conference on modular representation theory Seoul, Korea.

- 2003 North British Quantum Groups Colloquium in Edinburgh.
- 2003 International conference on representation theory Bielefeld, Germany.
- 2003 CIRM conference on McKay correspondence Luminy, France.
- 2004 International conference on Lie algebras and applications.
- 2008 Workshop on Representation Theory ETH Zurich, Switzerland.
- 2008 Workshop on Representation Theory Academia Sinica, Taipei, Taiwan.
- 2009 Algebraic Lie Structures with Origins in Physics INI, Cambridge, England (one of the organisers).
- 2009 Conference in honour of A.E. Zalesskii, University of Milan-Bicocca, Italy.
- 2009 Representation Theory and Lie Theory Isaac Newton Institute, Cambridge, England.
- 2009 Six lectures at Summer School on Lie Theory Jacobs University Bremen, Bremen, Germany.
- 2009 Conference on Algebraic Groups and Invariant Theory Ascona, Switzerland (three lectures).
- 2009 Workshop on Lie Algebras and Related Topics Institute for Mathematical Sciences, Daejeon, Korea.
- 2009 ARTIN meeting in Lancaster (England).
- 2010 Symmetric Spaces and Their Generalisations Levico Terme, Italy.
- 2010 Kent Algebra Days, Canterbury, England.
- 2010 Representation Theory of Algebraic Groups Nagoya University, Japan.
- 2011 ARTIN meeting in Aberdeen (Scotland).
- 2011 ICMS conference on Noncommutative Algebra Isle of Skye, Scotland.
- 2011 Perspectives in Algebraic Lie Theory Isaac Newton Institute, Cambridge, England.
- 2012 Oberwolfach meeting Enveloping Algebras and Representation Theory, Oberwolfach, Germany.
- 2012 Meeting Representation Theory and Symplectic Algebraic Geometry, CIRM, Luminy, France.
- 2012 International conference on support varieties Seattle, Washington.
- 2012 Algebraic and geometric Aspects of Lie Theory University of Rheims, France.
- 2013 Oberwolfach meeting Algebraic groups Oberwolfach, Germany.
- 2013 Lie Theory Workshops, Eugene, Oregon. 2013 ARTIN meeting in Sheffield (England).
- 2014 Enveloping Algebras and Representation Theory St John's, Canada.