

CURRICULUM VITAE

Alexander Kleshchev

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PUBLICATIONS: 1 monograph, 4 research memoirs, and 78 research articles published or accepted for publication, see the attached list.

POSITIONS:

- 1993–1994 - **Research Fellow**, *Institute of Mathematics*, Minsk.
- 1994–1995 - Royal Society **Postdoctoral Fellow**, *Cambridge University*, Cambridge, England.
- 1995–2000 - **Assistant Professor**, *University of Oregon*.
- 2000–2006 - **Associate Professor**, *University of Oregon*.
- 2006–present - **Professor**, *University of Oregon*.

AWARDS AND RECOGNITION:

- 2006–2010 - **Faculty Excellence Award**, *University of Oregon*.
- 2009 - **Life Fellow**, Clare Hall College, *University of Cambridge*, U.K.
- 2010 - University of Sydney **International Visiting Fellow**, *University of Sydney*, Australia.
- 2011 - **Humboldt Research Prize**, *Alexander von Humboldt Foundation*, Germany.
- 2012–2014 - **Richard A. Bray Faculty Fellow**, *University of Oregon*.
- 2013 - **Essén Lecturer**, *Uppsala University*, Sweden.
- 2014 - **Invited speaker at the International Congress of Mathematicians**, *ICM*, Seoul, Korea.
- 2015 - **Fulbright Professor** in Germany.
- 2016 - **American Mathematical Society Fellow**.

2016 - **Bernoulli Lecturer**, *Ecole Polytechnique Federale de Lausanne, Switzerland.*

2016–2018 - **Mercator Professor**, *University of Stuttgart, Germany.*

2018 - **Simons Professor**, *Mathematical Sciences Research Institute, Berkeley, CA.*

EDITORIAL WORK:

2005–2015 - *Algebra Editor* of the **Transactions of the American Mathematical Society**.

2005–2015 - *Algebra Editor* of the **Memoirs of the American Mathematical Society**.

2011–present - *Managing Editor* of the **Transformation Groups**.

2018–present - *Editor* of the **Journal of Combinatorial Algebra**.

2018–present - *Editor* of the **Advances in Mathematics**.

GRADUATE STUDENTS:

Jagat Sheth (Ph.D., University of Oregon, 1999).

Berndt Ackermann (exchange graduate student from the University of Stuttgart, Germany, 1999-2000).

Vanessa Miemietz (exchange graduate student from the University of Stuttgart, Germany, 2000-2001).

Aaron Phillips (Ph.D., University of Oregon, 2003).

Oliver Ruff (Ph.D., University of Oregon, 2005).

David Hill (Ph.D., University of Oregon, 2007).

David Nash (Ph.D., University of Oregon, 2010).

Clinton Boys (visiting graduate student from the University of Sydney, Australia, 2013).

Joseph Loubert (Ph.D., University of Oregon, 2015).

Robert Muth (Ph.D., University of Oregon, 2016).

Christoph Lampe (exchange graduate student from the University of Kaiserslautern, Germany, 2016)

David Steinberg (Ph.D., University of Oregon, 2017).

Doeke Buursma (University of Oregon, current).

Ilan Weinschelbaum (University of Oregon, current).

POSTDOCTORAL ADVICEES

Alexander Ellis (University of Oregon, 2013-2015).

RESEARCH GRANTS:

1993–1994 - grant of the **International Science Foundation** for the mathematicians of the Former Soviet Union.

1994–1995 - the **Royal Society** Postdoctoral Grant.

1995–1996 - Grant of the **Volkswagen Foundation**.

1996–1999 - **NSF** grant (DMS-9600124), PI.

1999–2002 - **NSF** grant (DMS-9900134), PI.

2003–2004 - **NSF** conference grant (DMS-0244651), PI.

2004–2005 - **NSA** conference grant, PI.

2002–2007 - **NSF** grant (DMS-0139019), PI.

2008–2009 - **NSA** conference grant, PI.

2008–2009 - **NSF** conference grant (DMS-0852633), PI.

2011 - **Dynasty Foundation** travel grant for visiting universities in Moscow, Russia.

2007–2012 - **NSF** grant (DMS-0654147), coPI.

2012–2017 - **NSF** grant (DMS-1161094), PI.

2015–2016 - **Fulbright** Professor in Germany.

2017–2020 - **NSF** grant (DMS-1700905), coPI.

PROFESSIONAL SERVICE:

2003, 2004, 2005, 2006, 2015 - **NSA** Panelist.

2005, 2006, 2013, 2014 - **NSF** Panelist.

VISITING POSITIONS:

1994 - *Emmy Noether Institute for Mathematical Research*, Bar-Ilan University, Ramat-Gan, Israel.

1996 - *Institute for Experimental Mathematics*, Essen, Germany.

1997 - *Isaac Newton Institute for Mathematical Sciences*, Cambridge, England.

1998 - *University of Bielefeld*, Germany.

2001–2002 - *University of Wisconsin-Madison* (**sabbatical**).

2002 - *Fields Institute for Research in Mathematical Sciences*, Toronto, Canada.

2005 - *Ecole Polytechnique Federale de Lausanne*, Lausanne, Switzerland.

2008 - *Mathematical Sciences Research Institute*, Berkeley, California.

2008 - *University of Melbourne*, Melbourne, Australia.

2008 - *University of Virginia* (**sabbatical**).

2009 - *Isaac Newton Institute for Mathematical Sciences*, Cambridge, England (**sabbatical**).

2009 - *Beijing International Mathematical Research Center*, Beijing, China.

2010 - *University of Sydney*, Australia.

2011 - *Hausdorff Institute for Mathematics*, Bonn, Germany.

2011 - *University of Stuttgart*, Stuttgart, Germany.

2012 - *University of Melbourne*, Melbourne, Australia.

2012 - *University of Stuttgart*, Stuttgart, Germany.

2013 - *University of Stuttgart*, Stuttgart, Germany.

2014 - *University of Stuttgart*, Stuttgart, Germany.

2015 - *University of Melbourne*, Melbourne, Australia.

2015–2016 - *Max-Planck-Institute für Mathematik*, Bonn, Germany (**sabbatical**).

2016 - *University of Stuttgart*, Stuttgart, Germany.

2017 - *University of Stuttgart*, Stuttgart, Germany.

2017 - *Mathematical Sciences Research Institute*, Berkeley, CA.

2018 - *University of Stuttgart*, Stuttgart, Germany.

ORGANIZING CONFERENCES:

- 2003 - “Representations of Finite Groups” (*Oberwolfach, Germany*).
- 2004 - “Groups and Representations” (*Eugene, Oregon*).
- 2005 - “Representations of Groups and Algebras”, AMS special session (*Eugene, Oregon*).
- 2006 - “Representations of Finite Groups” (*Oberwolfach, Germany*).
- 2008 - “Combinatorics and Representation Theory”, **half-year program** at Mathematical Sciences Research Institute (*Berkeley, California*).
- 2008 - “Representation Theory of Finite Groups and Related Topics”, **half-year program** at Mathematical Sciences Research Institute (*Berkeley, California*).
- 2008 - “Lie Theory” (*MSRI, Berkeley, California*).
- 2008 - “Combinatorial Representation Theory”, section of the AMS meeting at UBC in 2008 (*Vancouver, Canada*).
- 2009 - “Algebraic Lie Theory”, **half-year program** at Isaac Newton Institute (*Cambridge, England*).
- 2009 - “Introductory Workshop on Algebraic Lie Theory” (*Cambridge, England*).
- 2009 - “Lie Algebraic Systems with Origins in Physics” (*Cambridge, England*).
- 2009 - “Spitalfields Day” (*Cambridge, England*).
- 2009 - “Representation Theory and Lie Theory” (*Cambridge, England*).
- 2010 - “Combinatorial Representation Theory” (*Oberwolfach, Germany*).
- 2011 - “Algebraic Lie Theory”, Isaac Newton Institute (*Cambridge, England*).
- 2012 - “International Conference on Representations of Algebras”, scientific advisory committee (*Bielefeld, Germany*).
- 2012 - Summer School “Lie Algebras, Algebraic Groups, and Invariant Theory” (*Tolatti State University, Russia*).

- 2014 - Winter School “Lie Algebras, Algebraic Groups, and Invariant Theory IV” (*Moscow State University, Russia*).
- 2015 - ”Representation Theory”, Special Session of the first Joint Meeting of the AMS-EMS-Portuguese MS, (*Porto, Portugal*).
- 2015 - Summer School “Lie Algebras, Algebraic Groups, and Invariant Theory V” (*Samara State University, Russia*); program committee.
- 2016 - “Vaintrobfest: Representations, Combinatorics, Knots, and Geometry” (*University of Oregon*).
- 2017 - Winter School “Lie Algebras, Algebraic Groups, and Invariant Theory VI” (*Moscow State University, Russia*); program committee.
- 2018 - MSRI program “Representation theory of groups” (**semester program**).
- 2018 - Workshop “Group Representation Theory and Applications” (*MSRI, Berkeley, California*).
- 2018 - Summer School “Lie Algebras, Algebraic Groups, and Invariant Theory VII” (*Samara University, Russia*); program committee.

INVITED TALKS AND MINI-COURSES:

- 1988
- *Moscow State University (Russia)*.
- 1991
- International Conference on Algebra (*Barnaul, Russia*).
- 1992
- Leningrad Branch of the *Steklov Institute (Russia)*.
- 1993
- *Moscow State University (Russia)*.
- *Technion, Haifa (Israel)*.
- *Bar-Ilan University (Israel)*.
- *Hebrew University of Jerusalem (Israel)*.
- 1994

- NATO Advanced Study Institute on Finite and Locally Finite Groups, (*Bosphorous University Istanbul, Turkey*).
- Group Representation Theory Conference (*Technion, Haifa, Israel*).
- *Bar-Ilan University* (Israel), **2 lectures**;
- *University of Beer-Sheva* (Israel);
- *University of Manchester* (England).
- *University of Cambridge* (England).
- *University of Warwick* (England).
- *Imperial College, University of London* (England).

1995

- Enumerative Combinatorics and Symmetric Groups Conference (*Oberwolfach, Germany*).
- Representation Theory Conference (*Strasbourg, France*).
- *Institute for Experimental Mathematics*, Essen (Germany).
- *University of Oregon*.
- *Aarhus University* (Denmark).
- *University of Copenhagen* (Denmark).
- *Oxford University* (England).
- *University of Wales* (UK).

1996

- Representation Theory of Finite Groups Conference (*Bad Honnef, Germany*).
- Meeting of the German Mathematical Society (*Jena, Germany*).
- *Institute for Experimental Mathematics*, Essen (Germany).

1997

- Representations of Algebraic Groups Conference (*Cambridge, England*), **3 lectures**.
- *University of Manchester* (U.K.).
- *University of Stuttgart* (Germany).

1998

- Symposium on modular representation theory (*University of Virginia*), **5 lectures**.

- Algebraic Representation Theory Conference (*Aarhus, Denmark*).
- Representation Theory and Combinatorics Conference (*Magdeburg, Germany*).
- Representation Theory of Algebras Conference (*Bielefeld, Germany*).
- AMS meeting, (*Kansas State University*).
- *University of Bielefeld* (Germany).

1999

- Meeting of the Canadian Mathematical Society (*St. John's, Canada*).
- AMS meeting (*University of Florida*).
- Representations of Finite Groups (*Oberwolfach, Germany*).
- *Utah State University*.
- *University of South Alabama*.
- *University of Stuttgart* (Germany).

2000

- Combinatorics of Lie Type Conference (*University of Wisconsin-Madison*).
- Algebra-2000 Conference (*Edmonton, Canada*).
- Representations of Finite Groups Conference (*Oberwolfach, Germany*).
- AMS meeting (*Notre Dame, Indiana*).

2001

- Conference on Legacy of Schur's 1901 Thesis (*Gregynog Hall, Wales, U.K.*).
- Groups, Geometries, and Representations Conference (*Durham, England*).
- Algebraic Groups and Quantum groups Conference (*Tokyo, Japan*).
- Joint AMS-MAA meeting (*New Orleans, Louisiana*).
- *Oxford University* (England).
- *University of Wisconsin-Madison*, **6 lectures**.

- *University of Chicago.*

2002

- Representations of Finite Groups and Related Algebras Conference (*Durham, England*), **2 lectures.**
- Representations of Algebras and Related Topics Program (*Fields Institute, Toronto, Canada*), **5 lectures.**
- Modular Representation Theory Conference (*Korea Institute for Advanced Study, Seoul, Korea*), **3 lectures.**
- *Notre Dame University.*
- *Northwestern University.*
- *University of Wisconsin-Madison.*
- *Reed College.*
- *University of Arizona.*

2003

- Finite Groups Conference (*University of Florida*).
- Summer School on Group Representations (*Lisbon, Portugal*), **5 lectures.**
- Conference on Current Trends in Group Representation Theory (*Banff International Research Station, Canada*).
- *Massachusetts Institute of Technology.*
- *University of Coimbra (Portugal).*

2004

- AMS-IMS-SIAM Joint Summer Research Conference Representations of Algebraic Groups, Quantum Groups, and Lie algebras (*Snowbird, Utah*).
- Conference on Interaction of Finite Dimensional Algebras with other areas of Mathematics (*Banff International Research Station, Canada*).
- *University of California-Riverside.*

2005

- Group Representation Theory Program (*Bernoulli Center, EPFL, Lausanne, Switzerland*).

- Representation Theory Conference (*University of Bielefeld, Germany*).
- Flavors of Group Theory Conference (*Banff International Research Station, Canada*).
- *University of Besancon* (France).
- *University of Hannover* (Germany).
- *University of Georgia*.
- *Stanford University*.

2006

- *University of Chicago*.
- *University of California-Santa Cruz*.
- *University of California-Berkeley*.

2007

- Algebraic Lie Theory Conference (*Banff International Research Station, Canada*).
- Geometry and Lie Theory Conference (*University of Canberra and University of Sydney, Australia*)
- International Conference on Algebra (*Tsinghua University, China*).
- Group Theory and Combinatorics Conference and School (*University of Florida*), **3 lectures**.
- Algebra Day (*Ottawa, Canada*).
- Conference on Algebraic aspects of Lie theory (*Academia Sinica, Taipei, Taiwan*).

2008

- Evans Talk for undergraduates (*University of California-Berkeley*).
- Combinatorics and Representation Theory Conference (*Nagoya University, Japan*).
- Meeting of the American Mathematical Society, (*University of British Columbia, Vancouver, Canada*), **plenary talk**.
- *Mathematical Sciences Research Institute* (University of California-Berkeley).
- *University of Melbourne* (Australia), **3 lectures**.
- *University of Sydney* (Australia).

- *University of Brisbane* (Australia).
- *University of Virginia*, **4 lectures**.
- *University of Chicago*.
- *University of Georgia*.
- *Columbia University*.

2009

- Introductory Workshop on Algebraic Lie Theory (*Isaac Newton Institute, Cambridge, England*), **3 lectures**.
- London Algebra Colloquium (*Imperial College, London, U.K.*).
- Topics in Algebra Conference (*Milan, Italy*).
- International Workshop on Algebraic Groups, Quantum Groups and Related Topics (*Beijing, China*).
- Workshop on Lie Theory and Representation Theory (*East China Normal University, Shanghai, China*).
- Summer School on Lie Theory and Representation Theory (*East China Normal University, Shanghai, China*), **6 lectures**.
- Algebraic Groups and Invariant Theory Conference (*Monte Verita Conference Center, Ascona, Switzerland*).
- Workshop on Algebraic Geometry and Physics (*Maresias Conference Center, Maresias, Brazil*), **3 lectures**.
- Workshop on Combinatorial and Geometric Approach to Representation Theory (*Seoul National University, Seoul, Korea*).
- Southwest Group Theory Day (*University of Arizona, Tucson, Arizona*).
- *University of Cambridge* (U.K.).
- *Birmingham University* (U.K.).
- *Universite Paris 7* (France).
- *University of Manchester* (U.K.).
- *Bar-Ilan University* (Israel), **2 lectures**.
- *Beijing International Mathematical Research Center, Peking University* (China), **2 lectures**.

2010

- Special AMS Session on Combinatorial and Categorical Methods in Representation Theory (*San Francisco*).

- Summer School on Lie Theory and Representation Theory (*University of Georgia*), **3 lectures**.
- Southwest Group Theory Day (*University of Arizona*).
- *University of Melbourne* (Australia), **2 lectures**.
- *University of Sydney* (Australia), **2 lectures**.
- *Kansas State University*, **2 lectures**.

2011

- Lie Algebras, Algebraic Groups, and Invariant Theory Conference and School (*Moscow State University, Russia*), **3 lectures**.
- Research program “On the Interaction of Representation Theory with Geometry and Combinatorics” (*Hausdorff Institute of Mathematics, Bonn, Germany*), **4 lectures**.
- Combinatorial Representation Theory Day (*University of Hannover, Germany*).
- Conference of the DFG priority program “Representation Theory” (*University of Münster, Germany*).
- Conference On the Interaction of Representation Theory with Geometry and Combinatorics (*Bonn, Germany*).
- Conference on Affine Hecke Algebras, the Langlands Program, Conformal Field Theory and Super Yang-Mills Theory (*Centre International de Rencontres Mathématiques, Luminy, France*).
- Conference on Linear Groups and Group Representations: Classification Problems (*Milan, Italy*).
- Southwest Group Theory Day (*University of Arizona*).
- *Moscow Independent University* (Moscow, Russia).
- *University of Stuttgart* (Stuttgart, Germany), **2 lectures**.

2012

- Lie Theory Workshop on Quantum Groups (*Stanford University*).
- Workshop on Cohomology and Support in Representation Theory and Related Topics (*University of Washington*).
- Workshop on Gradings and Decomposition numbers (*Stuttgart, Germany*), **2 talks**.

- *University of Southern California.*
- *University of Melbourne (Australia).*
- *Ecolé Polytechnique Federale de Lausanne (Switzerland).*
- *University of Milan (Italy).*
- *University of Stuttgart (Germany).*
- *University of Jena (Germany).*
- *University of Hannover (Germany).*

2013

- Program on Modular Representation Theory of Finite and p-adic Groups (*National University of Singapore, Singapore*), **4 lectures.**
- Essén Lectures (*Uppsala University, Sweden*), **15 lectures masterclass for Swedish graduate students.**
- North Germany Group Theory Colloquium (*University of Kaiserslautern, Germany*).
- Southwest Group Theory Day (*University of Arizona*).
- Taipei Conference in Representation Theory (*Academia Sinica, Taipei, Taiwan*).
- Algebra Seminar, *University of Stuttgart (Germany)*.
- Kansas State University Colloquium.

2014

- International Congress of Mathematicians (*Seoul, Korea*), *45 minutes invited talk.*
- Conference “Categorification and geometric representation theory” (*Montreal, Canada*).
- Workshop “Representation theory of symmetric groups and KLR algebras” (*Birmingham, UK*).
- Algebra Seminar, *University of Stuttgart (Germany)*.
- University of Connecticut Special Colloquium.

2015

- Conference “Representations of Finite and Algebraic Groups” (*Les Houches, France*).
- Program on Representation Theory (*Mittag-Leffler Institute, Stockholm, Sweden*).

- Joint Meeting of the American, European, and Portuguese Mathematical Societies (*Porto, Portugal*).
- Summer School on Representation Theory, (*Coimbra, Portugal*), **5 hours of lectures**.
- Conference “Categorical Representation Theory and Combinatorics” (*Korean Institute for Advanced Study, Seoul, Korea*).
- University of Melbourne Colloquium, (*Melbourne, Australia*).
- University of Bonn Representation Theory Seminar, (*Bonn, Germany*).
- Emmy-Noether-Seminar, University of Erlangen (*Erlangen, Germany*).
- Seminar on Algebra and Geometry, University of Rome ”La Sapienza” (*Rome, Italy*).

2016

- Conference “Representation Theory of Symmetric Groups and Related Topics” (*Kaiserslautern, Germany*).
- Conference “Representation Theory and Symplectic Singularities” (*Edinburgh, U.K.*).
- Séminaire Groupes, Représentations et Géométrie, Université Paris Diderot - Paris 7 (*Paris, France*).
- Séminaire d’Arithmétique et de Géométrie Algébrique (SAGA), Université Paris-Sud (*Paris, France*).
- Conference “Branching problems for reductive groups” (*Mittag-Leffler Institute, Stockholm, Sweden*).
- US - Mexico Conference on Representation theory, Categorification, and Noncommutative Algebra (*University of Southern California, Los Angeles, CA*).
- Algebra and Number Theory Seminar (*Universität zu Köln, Germany*).
- Representation Theory Seminar, *University of Bielefeld*, (*Germany*).
- North-West Germany Representation Theory Workshop, *Ruhr-University Bochum*, (*Germany*).
- Algebra and Number Theory Seminar, *University of Stuttgart*, (*Germany*).

- Vaintrobfest, *University of Oregon*.
- Bernoulli Lecture, *Ecolé Polytechnique Federale de Lausanne* (Switzerland).

2017

- Conference “Finite Simple Groups and Their Representations”, *University of Arizona*, Tucson, Arizona.
- Algebra and Number Theory Seminar, *University of Stuttgart*, (Germany).
- “Rational Cherednik algebras and categorification”, session of the AMS meeting, *University of California-Riverside*.
- Workshop on representation theory of symmetric groups and related algebras, *University of Singapore*.

2018

- “Connections for Women: Group Representation Theory and Applications”, *Mathematical Sciences Research Institute*, Berkeley, California.
- “Academic Sponsors Day”, *Mathematical Sciences Research Institute*, Berkeley, California.
- *University of California-Santa Cruz* Colloquium.
- “Categorification and Higher Representation Theory”, *Institut Mittag-Leffler*, Stockholm, Sweden.
- “Algebraic Representation Theory”, *University of Stuttgart*, Germany; **3 talks**.

TEACHING EXPERIENCE: *Moscow Institute of Energy*, 1988 - 2 undergraduate semester courses in Calculus.

University of Oregon, 1995–present - Large variety of undergraduate and graduate courses at all levels.

International Schools and Conferences, 1995–present - Large variety of courses, mini-courses and masterclasses for graduate students and young mathematicians.

EDUCATION:

1983–1988 - *Moscow State University*.

1988–1993 - *Institute of Mathematics, Academy of Sciences of Belarus.*

DEGREES:

1988 - **M.S.**, *Moscow State University.*

1993 - **Ph.D.**, *Institute of Mathematics, Academy of Sciences of Belarus*, for the thesis “Cohomology of finite Chevalley groups with coefficients in some modules over fields of defining characteristic” (supervisor A.E. Zalesskii).

RESEARCH INTERESTS:

Primary - Lie theory, representation theory, algebraic groups, finite groups, symmetric groups, quantum groups, Hecke algebras, superalgebras, W -algebras, categorification.

Secondary - algebraic combinatorics, group cohomology, permutation groups, group rings, associative algebras, locally finite groups.

LANGUAGES: - English, Russian, Belarussian, some German.

PERSONAL: Born in 1966 in Belarus. US citizen since 2002. Married, have three children.

LIST OF MAIN PUBLICATIONS

Books and memoirs

1. (with J. Brundan and R. Dipper) *Quantum linear groups and representations of $GL_n(\mathbb{F}_q)$* , Memoirs of the American Mathematical Society **149** (2001), No 706, American Mathematical Society, Providence, 2001, 120 pages.
2. *Linear and Projective Representations of Symmetric groups*, Cambridge University Press, Cambridge, 2005. Series: Cambridge Tracts in Mathematics No. 163, Hardback (ISBN-10: 0521837030, ISBN-13: 9780521837033), Paperback (ISBN-13: 9780521104180), 292 pages.
3. (with J. Brundan) *Representations of shifted Yangians*, Memoirs of the American Mathematical Society **196** (2008), No. 918. American Mathematical Society, Providence, 2008, 115 pages.
4. (with V. Shchigolev) *Modular branching rules for projective representations of symmetric groups and lowering operators for the supergroup $Q(n)$* , Memoirs of the American Mathematical Society, **220** (2012), No. 1034, American Mathematical Society, Providence, 2012, 140 pages.
5. (with R. Muth) *Imaginary Schur-Weyl duality*, Memoirs of the American Mathematical Society, **245** (2017) No. 1157, American Mathematical Society, Providence, 2017; ISBN: 978-1-4704-2249-3; 100 pages.
6. (with J. Brundan) *Algebra: Theorems, Examples, Exercises*, 567 pages, textbook in preprint form.

All major publications

1. Homological dimension of Banach algebras of smooth functions is equal to infinity, *Moscow University Mathematical Bulletin* **0043** (1988), No 6, 48–51.

2. Cohomology of finite Chevalley groups with coefficients in modules with nonradical highest weights, I, Preprint No 17(417), 1990, 32 p. *Institute of Mathematics, Minsk*.
3. Cohomology of finite Chevalley groups with coefficients in modules with nonradical highest weights, II, Preprint No 47(447), 1990, 43 p. *Institute of Mathematics, Minsk*.
4. 1-cohomology of a finite special linear group with coefficients in the module of truncated polynomials, *Mathematical Notes* **49** (1991), No. 6, 597–603.
5. On extensions of modules of truncated polynomials and external powers over finite special linear groups, *Mathematical Notes* **51** (1992), No. 4, 356–363.
6. (with A. A. Premet) On second degree cohomology of symmetric and alternating groups, *Communications in Algebra* **21**(2) (1993), 583–600.
7. On restrictions of irreducible modular representations of semisimple algebraic groups and symmetric groups to some natural subgroups, *Russian Academy of Sciences Doklady* **48**(1994), No 3, 425–427.
8. 1-cohomology of finite Chevalley groups with coefficients in modules with one-dimensional weight spaces, *Communications in Algebra* **22**(4)(1994), 1197–1218.
9. On restrictions of irreducible modular representations of semisimple algebraic groups and symmetric groups to some natural subgroups, I, *Proceedings of the London Mathematical Society* (3) **69** (1994), 515–540.
10. On Conjectures of Benson and Jantzen-Seitz about modular representations of symmetric groups, *Algebras, Groups and Geometries* **11**(1994), 215–228.

11. On restrictions of irreducible modular representations of semisimple algebraic groups and symmetric groups to some natural subgroups, II, *Communications in Algebra* **22**(15) (1994), 6175–6208.
12. On branching rules for modular representations of reductive groups, *Mathematical Notes* **56**(1994), No 5, 143–145.
13. Branching rules for modular representations of symmetric groups, I, *Journal of Algebra* **178**(1995), 493–511 (MR 96m:20019a, **featured review**).
14. Branching rules for modular representations of symmetric groups, II, *Journal für die reine und angewandte Mathematik* **459**(1995), 163–212 (MR 96m:20019b, **featured review**).
15. Completely splittable representations of symmetric groups, *Journal of Algebra* **181**(1996), 584–592.
16. Branching rules for modular representations of symmetric groups, III, *Journal of the London Mathematical Society* (2) **54**(1996), 25–38 (MR 96m:20019c, **featured review**).
17. (with V.P. Burichenko and S. Martin) On cohomology of dual Specht modules, *Journal of Pure and Applied Algebra* **112**(1996), 157–180.
18. (with B. Ford) A proof of the Mullineux conjecture, *Mathematische Zeitschrift* **226** (1997) 2, 267–308 (MR 98k:20015a, **featured review**).
19. On the decomposition numbers and branching coefficients for symmetric and special linear groups, *Proceedings of the London Mathematical Society* (3) **75** (1997), 497–558.
20. Branching rules for modular representations of symmetric groups, IV, *Journal of Algebra* **201** (1998), 547–572.

21. (with J. Brundan and I.D. Suprunenko) Semisimple restrictions from $GL(n)$ to $GL(n-1)$, *Journal für die reine und angewandte Mathematik* **500** (1998), 83–112.
22. Branching rules for symmetric groups and applications, in *Algebraic Groups and their Representations*, R.W. Carter and J. Saxl editors, NATO ASI Series C, Vol. 517, Kluwer Academic Publishers, Dordrecht/Boston/London, 1998, p. 103–130.
23. (with A. Baranov) Maximal ideals in modular group algebras of the finitary symmetric and alternating groups, *Transactions of the American Mathematical Society* **351**(1999), 595–617.
24. (with J. Brundan) Some remarks on branching rules and tensor products for algebraic groups, *Journal of Algebra* **217** (1999), 335–351.
25. (with A. Baranov and A. Zalesskii) Asymptotic results on modular representations of symmetric groups and almost simple modular group algebras, *Journal of Algebra* **219** (1999), 506–530.
26. (with C. Bessenrodt) On Kronecker products of complex representations of the symmetric and alternating groups, *Pacific Journal of Mathematics* **190** (1999), 201–223.
27. (with J. Brundan) Modular Littlewood-Richardson coefficients, *Mathematische Zeitschrift* **232** (1999), 287–320.
28. (with R. Gow) Connections between the representations of the symmetric group and the symplectic group in characteristic 2, *Journal of Algebra* **221**(1999), 60–89.
29. (with J. Sheth) On extensions of simple modules over symmetric and algebraic groups, *Journal of Algebra* **221**(1999), 705–722. Corrigendum: *Journal of Algebra* **238**(2001), 843–844.
30. (with J. Brundan) On translation functors for general linear and symmetric groups, *Proceedings of the London Mathematical Society* **80** (2000), 75–106.

31. (with A. Premet) The globally irreducible representations of symmetric groups, *Proceedings of the American Mathematical Society* **128** (2000), 647–655.
32. (with J. Brundan) Lower bounds for degrees of irreducible Brauer characters of finite general linear groups, *Journal of Algebra* **223** (2000), 615–629.
33. (with C. Bessenrodt) On tensor products of modular representations of symmetric groups, *Bulletin of the London Mathematical Society* **32** (2000), 292–296.
34. (with C. Bessenrodt) Irreducible tensor products over alternating groups, *Journal of Algebra* **228** (2000), 536–550.
35. (with J. Sheth) Representations of the symmetric group are reducible over simply transitive subgroups, *Mathematische Zeitschrift* **235** (2000), 99–109.
36. (with J. Brundan and R. Dipper) *Quantum linear groups and representations of $GL_n(\mathbb{F}_q)$* , *Memoirs of the American Mathematical Society* **149** (2001), No 706, American Mathematical Society, Providence, 2001, 120 pages.
37. (with J. Brundan) Representations of the symmetric group which are irreducible over subgroups, *Journal für die reine und angewandte Mathematik* **530** (2001), 145–190.
38. (with C. Bessenrodt) On Kronecker products of spin representations of the double covers of the symmetric groups, *Pacific Journal of Mathematics* **198** (2001), 295–305.
39. (with J. Brundan) Hecke-Clifford superalgebras, crystals of type $A_{2\ell}^{(2)}$ and modular branching rules for \hat{S}_n , *Representation Theory* **5** (2001), 317–403.

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41. (with J. Brundan) Tensor products and restrictions in type A , pp. 67–100 in *Modular Representation Theory of Finite Groups*, 2001, DeGruyter.
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