

BOOKS

1. “Cohomology of vector bundles and syzygies,” *Cambridge Tracts in Mathematics*, no. 149, Cambridge University Press (2003).

RESEARCH PUBLICATIONS

1. On the ideals and singularities of secant varieties of Segre varieties, (with J. Landsberg), *Bull. London Math. Soc.* 39(2007) no.4, 685-697,
2. Primary ideals associated to the linear strands of Lascoux’s resolution and syzygies of corresponding irreducible representations of the Lie superalgebra $\mathfrak{gl}(m, n)$, (with K. Akin) *J. Algebra*, 310 (2007), no. 2, 461–490.
3. Standard Bases for Affine $SL(n)$ -Modules, (with V. Kreiman, V. Lakshmibai, P. Magyar), *International Mathematics Research Notices* 2005, No. 21.
4. Application of the geometric technique of calculating syzygies to Rees algebras, *J. Algebra*, 276, 776-793 (2004).
5. Free resolutions for polynomial functors (with A. Tchernev), *J. Algebra*, 271, 22-64 (2004).
6. On representations with free modules of covariants (with C. Chang), *J. Pure and Applied Algebra*, 192, 69-94 (2004).
7. Fitting’s Lemma for $\mathbf{Z}/2$ -graded modules (with D. Eisenbud), *Trans. Am. Math. Soc.* 355, 4451-4473 (2003).
8. Cohen-Macaulay properties of Thom-Boardman strata II; the defining ideals of $\Sigma^{i,j}$ (with T. Fukui), *Proc. Lond. Math. Soc.* 87, 137-163 (2003).
9. Semi-invariants for quivers with relations (with H. Derksen), *J. Algebra*, 258, 216-227 (2002).
10. On the Littlewood-Richardson polynomials (with H. Derksen), *J. Algebra*, 255, 247-257 (2002).
11. On canonical decomposition for quiver representations (with H. Derksen), *Compositio Math.*, 133, 245-265 (2002).
12. Generalized quivers associated to reductive groups (with H. Derksen), *Colloquium Math.*, 94 151-173 (2002).
13. Two results on equations of nilpotent orbits, *J. Algebraic Geom.* 11 791-800 (2002).
14. Algebra and coinvariants and the action of a Coxeter element (with W. Kraśkiewicz), *Bayreuther Math. Schr.* 63, 265-284 (2001).
15. Semi-invariants of quivers and saturation for Littlewood-Richardson coefficients (with H. Derksen). *J. Amer. Math. Soc.* 13 467–479 (2000).
16. Graded characters of modules supported in the closure of a nilpotent conjugacy class (with M. Shimozono). *European J. Combin.* 21 257–288 (2000).
17. Cohen-Macaulay properties of Thom-Boardman strata. I. Morin’s ideal. (with T. Fukui) *Proc. London Math. Soc.* 80 257–303 (2000).
18. Semiinvariants of quivers (with A. Skowroński), *Transform. Groups* 5, 361-402 (2000).
19. On the Grothendieck group of modules supported in a nilpotent orbit in a Lie algebra $\mathfrak{gl}(n)$ (with J. Klimek , W. Kraśkiewicz , M. Shimozono) , *J. Pure Appl. Algebra* 153 237-261 (2000).
20. Symplectic multiple flag varieties of finite type (with P. Magyar and A. Zelevinsky). *J. Algebra* 230 245–265 (2000)
21. Koszul complexes and hyperdeterminants (with G. Boffi). *J. Algebra* 230 68–88 (2000).
22. The irreducible tensor representations of $\mathfrak{gl}(m | 1)$ and their generic homology (with K. Akin). *J. Algebra* 230 5–23 (2000).
23. Semi-invariants of canonical algebras (with A. Skowroński). *Manuscripta Math.* 100 391–403 (1999).
24. Bases for coordinate rings of conjugacy classes of nilpotent matrices (with M. Shimozono). *J. Algebra* 220 1–55 (1999).
25. Multiple flag varieties of finite type (with P. Magyar and A. Zelevinsky). *Adv. Math.* 141 97–118 (1999).
26. The Grothendieck group of G -equivariant modules over coordinate rings of G -orbits. *Colloq. Math.* 78 (1998). no. 1, 105–118 (with J. Klimek and W. Kraśkiewicz),
27. The Grothendieck group of $GL(F) \times GL(G)$ -equivariant modules over the coordinate ring of determinantal varieties. *Colloq. Math.* 76 243–263 (1998).

28. Minimal free resolutions of determinantal ideals and irreducible representations of the Lie superalgebra $\mathfrak{gl}(m|n)$ (with K. Akin). *J. Algebra* 197 559–583 (1997).
29. A free resolution of a symplectic rank variety (with J. Klimek and W. Kraśkiewicz). *J. Algebra* 196 475–489 (1997).
30. A formula with nonnegative terms for the degree of the dual variety of a homogeneous space (with C. DeConcini). *Proc. Amer. Math. Soc.* 125 1–8 (1997).
31. Singularities of hyperdeterminants (with A. Zelevinsky). *Ann. Inst. Fourier (Grenoble)* 46 591–644 (1996).
32. Determinantal formulas for multigraded resultants. *J. Algebraic Geom.* 3 (1994). no. 4, 569–597 (with A. Zelevinsky),
33. Multiplicative properties of projectively dual varieties. *Manuscripta Math.* 82 (1994). no. 2, 139–148 (with A. Zelevinsky),
34. Calculating discriminants by higher direct images. *Trans. Amer. Math. Soc.* 343 (1994). no. 1, 367–389
35. Gordan ideals in the theory of binary forms. *J. Algebra* 161 (1993). no. 2, 370–391,
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37. Some open problems in invariant theory. *Free resolutions in commutative algebra and algebraic geometry* (Sundance, UT, 1990). 139–146, *Res. Notes Math.*, 2, Jones and Bartlett, Boston, MA, 1992,
38. Multiplicities of points on a Schubert variety in a minuscule G/P (with V. Lakshmibai), *Adv. Math.* 84 (1990). no. 2, 179–208 ,
39. A short proof of a theorem of M. Hashimoto (with J. Roberts), *J. Algebra* 134 (1990). no. 1, 144–156 ,
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44. The equations of strata for binary forms. *J. Algebra* 122 (1989). no. 1, 244–249,
45. Pieri’s formulas for classical groups. *Invariant theory* (Denton, TX, 1986). 177–184, *Contemp. Math.*, 88, Amer. Math. Soc., Providence, RI, 1989,
46. Multiplicities of points on a Schubert variety in a minuscule G/P . *C. R. Acad. Sci. Paris Sr. I Math.* 307 (1988). no. 20, 993–996 (with V. Lakshmibai),
47. Representation-theoretic interpretation of a formula of D. E. Littlewood. *Math. Proc. Cambridge Philos. Soc.* 103 (1988). no. 2, 193–196 (with T. Józefiak),
48. On the construction of resolutions of determinantal ideals: a survey. *Seminaire d’algèbre Paul Dubreil et Marie-Paule Malliavin, 37me anne* (Paris, 1985), 73–92, *Lecture Notes in Math.*, 1220, Springer, Berlin-New York, 1986 (with P. Pragacz),
49. Complexes associated with trace and evaluation. Another approach to Lascoux’s resolution. *Adv. in Math.* 57 (1985). no. 2, 163–207 (with P. Pragacz),
50. Symmetric functions and Koszul complexes. *Adv. in Math.* 56 (1985). no. 1, 1–8 (with T. Józefiak),
51. Schur functors and Schur complexes. *Adv. in Math.* 44 (1982). no. 3, 207–278 (with K. Akin and D. Buchsbaum),
52. Resolutions of determinantal varieties and tensor complexes associated with symmetric and antisymmetric matrices. *Young tableaux and Schur functors in algebra and geometry* (Toruń, 1980), pp. 109–189, *Asterisque*, 87-88, Soc. Math. France, Paris, 1981 (with T. Józefiak and P. Pragacz),
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54. Resolutions of the exterior and symmetric powers of a module. *J. Algebra* 58 (1979). no. 2, 333–341,
55. Quotients of Cohen-Macaulay rings and perfect ideals. *Bull. Acad. Polon. Sci. Sr. Sci. Math. Astronom. Phys.* 26 (1978). no. 6, 475–476 (with T. Józefiak),

PREPRINTS

1. On Tangential varieties of rational homogeneous varieties, (with J. Landsberg), [math.AG/0509388](https://arxiv.org/abs/math/0509388).
2. On the minimal free resolution of the universal ring for resolutions of length two, (with A. Kustin), [math.AC/0508439](https://arxiv.org/abs/math/0508439).
3. On Ideal Generators for Affine Schubert Varieties, (with V. Kreiman, V. Lakshmibai, P. Magyar), [math.AG/0411127](https://arxiv.org/abs/math/0411127).

4. Degree bounds for invariants and covariants of binary forms (with H. Kraft) (2005).
5. On the number of subrepresentations of generic representations of quivers (with H. Derksen and A. Schofield), *math.AG/0507393*.
6. The Combinatorics of Quiver Representations, (with H. Derksen), *math.RT/0608288*,
7. Counterexamples to Okounkov's Log-Concavity Conjecture (with Calin Chindris, Harm Derksen), *math.RT/0610819*.

EXPOSITORY WRITINGS

1. Representations of quivers, (with H. Derksen), *Notices of the A.M.S.* 52 200–206 (2005).
2. A note about David Buchsbaum, (with D. Eisenbud). *J. Algebra*, 230 1–4 (2000).
3. Review of the book "Determinantal Varieties" by W. Bruns and U. Vetter, *Bulletin of the AMS*, Vol. 22, No.2, April 1990, 357-361.