

BRAD S SHELTON
CURRICULUM VITA - 2007

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EDUCATION:

Ph.D.	1982	Mathematics	University of Washington
M.A.	1982	Mathematics	University of Washington
B.A.	1976	Mathematics	University of Arizona

ACADEMIC APPOINTMENTS

2001 - Present	Head of Mathematics, University of Oregon
2000 - Present	Professor, University of Oregon
1990-2000	Associate Professor, University of Oregon
1985-1990	Assistant Professor, University of Oregon
1984-1987	N.S.F. Postdoctoral Research Fellow
1983-1985	S. E. Warschawski Research Assistant Professor, University of California at San Diego
1983	Instructor, University of Washington

PERSONAL INFORMATION

Wife	Carol Matte Shelton
Children	Suzanne Malia Shelton Carson Charlotte Shelton

CURRENT PROFESSIONAL SERVICE

1. American Mathematical Society Western Region Conference Committee, 2007-2009
2. American Mathematical Society Committee on Education, 2005-2008
3. Sponsor's representative, Mathematical Sciences Research Institute

SUMMARY OF MAJOR UNIVERSITY SERVICE

1. Faculty Advisory Council, 2004-2008. Chair 2007-2008.
2. Provost's Budget Task Force, 2006-
3. Provost's Committee on Course Evaluations, 2005-, Chair 2006-
4. President's Task Force on Athletics, 2001-2004.
5. Intercollegiate Athletics Committee, 1998-2004, Chair 2000-2004.
6. Faculty Personnel Committee, 1997
7. University Planning Committee, 1994-1996.
8. University Library Committee, 1992-1994, 1998-2000.

SCHOLARLY PUBLICATIONS

Journal Articles

1. "PBW Deformation Theory and Regular Central Extensions" (with Thomas Cassidy) To appear: Journal für die reine und angewandte Mathematik.
2. "Generalized Laurent Polynomial Rings as Quantum Projective 3-Spaces," Journal of Algebra, **303** (2006) 358-372 (with P. Goetz and T. Cassidy).
3. "Representation Theory of Two Families of Quantum Projective 3-Spaces," to appear, Journal of Algebra (with P. Goetz).
4. "Basic Properties of Generalized Down-Up Algebra," Journal of Algebra 279 (2004) 402-421 (with T. Cassidy).
5. "Schemes of Line Modules II," Communications in Algebra 30 (2002), no. 5, 2535-2552 (with M. Vancliff).
6. "Schemes of Line Modules I," Journal of the London Mathematical Society 65 (2002), no. 3, 575-590, (with M. Vancliff).
7. "On Koszul Algebras and a New Construction of Artin-Schelter Regular Algebras," Journal of Algebra 241 (2001), 789-798, (with C. Tingey).
8. "Embedding a Quantum Rank Three Quadric in a Quantum \mathbb{P}^3 ," Communications in Algebra 27(1999), no. 6, 2877-2904 (with M. Vancliff).
9. "Some Quantum \mathbb{P}^3 's with one point," Communications in Algebra 27(1999), no. 3, 1429-1443 (with M. Vancliff).
10. "Koszul algebras from graphs and hyperplane arrangements," Journal of the London Math Society 56 (1997), no. 3, 477-490 (with S. Yuzvinsky).
11. "The global dimension of rings of differential operators on projective space," Bulletin of the London Mathematical Society 24 (1992), no. 2, 148-158.
12. "A duality theorem for extensions of induced highest weight modules", Pacific Journal of Mathematics 146 (1990), no. 2, 227-237 (with D. Collingwood).
13. "Highest weight modules for Hermitian symmetric pairs of exceptional type," Proc. of the Amer. Math. Soc. 106 (1989), no. 3, 807-819 (with T. J. Enright).
14. "On matrix coefficients of the reflection representation," Proc. of the Amer. Math. Soc. 105 (1989), no. 1, 62-65 (with M. Douglass).
15. "Extensions between generalized Verma modules: the Hermitian symmetric cases," Mathematische Zeit. 197 (1988), no3, 305-318.
16. "Loewy series and simple projective modules in the category \mathcal{O}_S ," Pacific Journal of Mathematics 132 (1988), no. 2, 319-342 (with R. Irving).

17. "Filtrations on generalized Verma modules for Hermitian symmetric pairs," *Journal fur die reine und angewandte Math.* 383 (1988), 54-86 (with D. Collingwood and R. Irving).
18. "Determination of the Intertwining operators for holomorphically induced representations of Hermitian symmetric pairs," *Pacific Journal of Mathematics* 131 (1988), no. 1, 39-50 (with B. Boe and T. J. Enright).
19. "Decompositions in Categories of Highest Weight Modules," *Journal of Algebra* 100 (1986), no. 2, 380-402 (with T. J. Enright).
20. "Algebraic constructions of principal series and generalized principal series representations for a real semisimple Lie group," Ph.D. Thesis, University of Washington, 1983.

Research Monographs

21. "Categories of highest weight modules: applications to classical Hermitian symmetric pairs," *Memoirs of the American Mathematical Society*, Volume 67, Number 367, 1987 (with T. J. Enright).

Preprint Articles

22. Generalizing the notion of Koszul Algebra (with Thomas Cassidy). Submitted, March 2007. (<http://uoregon.edu/shelton/papers>)

Textbooks

1. *Introduction to Calculus Concepts*. Kendall/Hunt Publishing, 1994.

CURRICULUM DEVELOPMENT

1. Math 107. *Introduction to Calculus Concepts*.
2. Math 199. *Mathematical Tools. Introduction to Mathematica*.

CURRENT RESEARCH PROJECTS

1. Koszul Algebras
2. Generalizations of Koszul algebras.
3. Artin-Schelter regular algebras of global dimension four and associated noncommutative algebraic geometry.

RECENT MEETINGS, INVITED TALKS and CONFERENCE ORGANIZATION

1. 2007, March, Invited Speaker at Spring Southeastern Regional AMS Meeting, Davidson, NC. Special Session on Noncommutative Algebra.
2. 2007, March, Invited Speaker at Spring Central Regional AMS Meeting, Oxford, OH. Special Session on Noncommutative Algebraic Geometry.
3. 2006, December, Invited Speaker and Distinguished Visiting Professor, Bucknell University. One week residence program.
4. 2006, October, American Mathematical Society Committee on Education meeting, Washington, D.C.
5. 2006, April, Invited Speaker, Department of Mathematics, University of Arizona.
6. 2005, November, Principal Organizer: Fall Western Regional AMS meeting, Eugene, OR.
7. 2005, November, Co-organizer: Western Regional AMS meeting, Eugene. Special Session on Regular Algebras and Noncommutative Projective Geometry.
8. 2005, October, American Mathematical Society Committee on Education meeting, Washington, D.C.
9. 2005, September, Participant at Banff International Research Station, Banff, AB. 5-day workshop on interactions between noncommutative algebra and algebraic geometry.
10. 2005, July, Invited Speaker, Department of Mathematics, University of Texas at Arlington.
11. 2005, April, Invited Speaker at Spring Western Regional AMS Meeting, Santa Barbara, CA. Special Session on Noncommutative Algebra and Geometry.
12. 2004, December, Invited Speaker and Distinguished Visiting Professor, Bucknell University. One week residence program.
13. 2004, March, Invited Speaker and Distinguished Visiting Professor, Bucknell University. One week residence program.

PH.D. STUDENTS (CHAIR OF COMMITTEE)

1. Conner, Andrew (PhD expected, 2010)
2. Phan, Chris (PhD expected, 2009)
3. Nordstrom, Hans (Ph.D. 2005) Thesis: Associated Primes in Skew Polynomial Extension Rings and Generalized Weyl Algebras. Assistant Professor, University of Portland.
4. Goetz, Peter (Ph.D. 2003) Thesis: The Noncommutative Algebraic Geometry of Quantum Projective Spaces. Assistant Professor, Humbolt State University, California.
5. Brandl, Mary-Katherine (Ph.D. 2001) Thesis: Primitive and Poisson Spectra of Non-Semisimple Twists of Polynomial Algebras. Assistant Professor, Centenary College of Louisiana.
6. Brazfield, Chris (Ph.D. Summer 1999) Thesis: Artin-Schelter Regular algebras of Global Dimension Four with Two Generators. Associate Professor, Lebanon Valley College, Pennsylvania.
7. Cassidy, Thomas (Ph.D. 1999) Thesis: Global Dimension Four Extensions of Artin-Schelter Regular Algebras. Associate Professor, Bucknell University, Pennsylvania.
8. Cooper, Allison (Ph.D. 1997) Thesis: Structural Results for some Noncommutative Quadratic Graded Algebras. Assistant Professor, University of Indiana, North Bend.
9. Cruz, Robin (Ph.D. 1995) Thesis: Examples in Noncommutative Algebraic Geometry. Associate Professor, Albertson College, Idaho.
10. Faurot, Donald (Ph.D. 1994) Thesis: Twisted Differential Operator Rings over Projective Spaces in Positive Characteristic. Associate Professor, Utah Valley State College.
11. Duvuru, Srinath (Ph.D. 1993) Thesis: Rings of Differential Operators on Affine Curves over a Field of Characteristic p . Researcher, Informix Software Inc., Portland.

I have served as a member on an addition 25 PhD committees in the mathematics department and 2 outside the department.

COMMUNITY INVOLVEMENT

1. Round Table Of Eugene
2. Kidsports Soccer and Volleyball Coach, 1988-1998.