

Ken Price

University of Wisconsin Oshkosh

Education

Ph.D. in Mathematics, December 1997, University of Wisconsin-Milwaukee

Specialization: *Algebra*

Supervising Professor: Allen Bell

Dissertation: *Universal Enveloping Algebras of Lie Color Algebras*

M.S. in Mathematics, August 1991, University of Wisconsin-Milwaukee

B.S. in Mathematics with a Physics minor, 1990, Western Illinois University

Magna Cum Laude

Professional Experience

Professor of Mathematics September 2013 to present

Associate Professor of Mathematics September 2005 to September 2012

Assistant Professor of Mathematics September 1999 to June 2005

University of Wisconsin Oshkosh

Courses taught: College Algebra, Trigonometry, Problem Based Inquiry Seminar, FiniteMath, Applied Statistics, Probability and Statistics for Elementary Education, Discrete Math, Introduction to Statistics, Business Calculus, Calculus I, II, and III, Introduction to Abstract Mathematics, Linear Algebra, Advanced Linear Algebra, Introduction to Group Theory, Introduction to Ring Theory, Seminar in Mathematical Problem Solving, Euclidean and Non-Euclidean Geometry, Introduction to Real Analysis, and a graduate course in Algebra.

Selected Service: Fletcher Hall Faculty Associate (2001-2003), Math Department Web Site Administrator (2001-2006), College of Letters and Science Academic Program Review Committee (2003-2005, 2008), Odyssey Program (2003-2006), Codirector of Student Activities for the Wisconsin section of the Mathematical Association of America (2005-2014), Faculty Advocacy Committee (2008-2011), Faculty Development Board (2008-2012), Faculty Senate (2013-2016), Improvement of Instruction Committee (2014-2016), Associate Director of the University Studies Program since August 2016.

Professional Experience (continued)

Reader, 2011 to 2015, **Table Leader**, 2016, Educational Testing Service's Advanced Placement (AP) Calculus Exam.

Instructor UW Oshkosh Precollege Programs, 2009 to 2011

Taught an introductory course in business mathematics to high school students in the Young Entrepreneurial Scholars program.

Visiting Assistant Professor Truman State University, August 1997 to May 1999

Taught College Algebra, Trigonometry, Basic Statistics, Essentials of Calculus, Liberal Arts Calculus, Matrix Algebra, and Calculus II.

Service: Freshman Experience, Sophomore Writing Experience, Junior Interview Project, and Liberal Arts and Sciences Senior Portfolios.

Teaching Assistant UW-Milwaukee, September 1993 to August 1997

Taught Math for Elementary Education, Calculus II, College Algebra, and Pre-Calculus.

Instructor UWM's Gateway to Engineering Science and Technology, 1994 and 1995

Taught advanced geometry to minority and financially disadvantaged eighth- and ninth-grade students from Milwaukee Public Schools.

Instructor Saturday Academy, UWM and Milwaukee Public Schools, Seven semesters from spring 1994 to spring 1997

Designed a course on density that introduces students to the physical properties of materials in a science lab setting. Collaborated with secondary school teachers. Participated in teaching the following: density, geometry and tessellations, measuring height and distance, algebra experiments, math modeling and patty paper geometry.

Student Intern Los Alamos National Laboratory, January 1989 to August 1989

Assisted with free electron laser design by writing FORTRAN programs to determine magnetic field strengths in helically wound pulsed electromagnetic wigglers. The Department of Energy funded the internship as part of the Science and Engineering Research Semester program. My research group worked on possible medical applications of tunable lasers.

Publications

- Price, K. (1997). Homological Properties of Color Lie Superalgebras. *Advances in Ring Theory*, 287-293, Birkhäuser.
- Price, K. (2001). Primeness Criteria for Universal Enveloping Algebras of Lie Color Algebras. *Journal of Algebra* 235(2), 589-607.
- Price, K. (2005). Generic Lie Color Algebras. *Bulletin of the Australian Mathematical Society*. 71, 327-335.
- Price, K. & Coulibaly, R. (2006). Factorization in Quantum Planes. *Missouri Journal of Mathematical Sciences*, 18(3).
- Price, K. (2008). A Domain Test for Lie Color Algebras. *Journal of Algebra and its Applications* 7(1), 81–90.
- Price, K. & Holtz, C. (2009). Normal Quadratics in Ore Extensions, Quantum Planes, and Quantized Weyl Algebras. *Acta Appl. Math.* 108(1), 73–81.
- Price, K. & Szydlik, S. (2011). Take Aim at an Arrowgram. *MAA Focus* October/November 2011, 22.
- Price, K. (2013) Good Gradings of Generalized Incidence Rings. *Communications in Algebra* 41, 3668-3678.
- Price, K. & Szydlik, S. (2014). Good Gradings from Directed Graphs. *Contemporary Mathematics*, vol. 609, Amer. Math. Soc., Providence, RI, pp. 267—276.
- Price, K. (2015) An Alternative Construction to the Transitive Closure of a Directed Graph. *International Electronic Journal of Algebra* 17, 215-228.
- Price, K. & Gaddis, J. Some Algebras Similar to the 2×2 Jordanian Matrix Algebra, to appear in *Communications in Algebra*.
- Price, K. & DeWitt, J. (in preparation) Induced Good Group Gradings of Structural Matrix Rings.

Refereeing

Linear Algebra and its Applications

Journal of Algebra and its Applications

Manuscripta Mathematica

Pure and Applied Mathematics Quarterly

Selected Conference Presentations

“Arrowgrams Over Finite Abelian Groups” MOVES Conference in New York City, NY (2013).

“Good Gradings of Generalized Incidence Rings” Ohio State University/Denison Conference in Columbus, OH (2012).

“Arrowgrams” Joint Math Meetings in Boston, MA (2012).

“Blocked and Group Graded Matrix Constructions from Directed Graphs” Joint Math Meetings in San Francisco, CA (2010).

“A Domain Test for Lie Color Algebras” Groups, Rings, Lie and Hopf Algebras at Memorial University in Newfoundland, Canada (2007).

“Universal Enveloping Algebras of Lie Color Algebras” A satellite conference for the International Congress of Mathematicians in Granada, Spain (2006).

“Generic Lie Color Algebras” Groups, Rings and Algebras: A Conference in Honor of Donald S. Passman’s 65th Birthday in Madison (2005).

“Primeness Criteria for Universal Enveloping Algebras of Lie Color Algebras” AMS meeting in Milwaukee (1997) and Denison Conference in Columbus (1996).

Selected Conferences

The 8th Annual Legacy of R. L. Moore Conference, Austin (2005, 2010).

Joint Math Meetings in Boston (2012), San Francisco (2010, 1995), Washington, DC (2009), Atlanta (2005), San Diego (2002 and 1997), New Orleans (2001), San Antonio (1999), and Cincinnati (1994).

Project Next–WI workshops in Menomonee (2000–2003, 2008).

Sectional meetings of the AMS in Madison (2002), Milwaukee (1997), Detroit (1997), and Chicago (1995).

Midwest Ring Theory Conference in Dekalb (2010), Chicago (2002), Milwaukee (2001), and Madison (2000).

Women and Science Workshops in Wisconsin Dells (2000) and in Madison (1999).

Von Neumann Symposium at MSRI in Berkeley (1999).

National Science Foundation Park City Institute (1994).

Organizations and Awards

Sigma Xi

Mathematical Association of America (MAA)

Project NExT-Wisconsin Fellow

MAA Project NExT Fellow

AMS Math Reviewer

U.S. Department of Education Graduate Assistance in Areas of National Need (GANN) Fellowship while a graduate student at UW-Milwaukee (1990 to 1993)

Walter Eller Physics Scholarship while an undergraduate student at Western Illinois University (1988)

UW Oshkosh Professional Development Awards

Student Titan Employment Program (STEP) for “Mathematics of Puzzles Research Assistant” covering each of the academic years from fall 2011 through spring 2015.

Sabbatical for "Research at Atlantic Algebra Center" to visit Memorial University in Newfoundland, Canada in Fall 2009.

Undergraduate Student and Faculty Collaborative Research grant for “New Discoveries on Quantized Weyl Algebras” conducted during summer 2004.

Research Component grant for "Envelopes of Lie Color Algebras" conducted during Summer 2002.

Off-Campus Program Component grant to attend the Von Neumann Conference at the Mathematical Sciences Research Institute in Berkeley, CA in 1999.