### Jonathan Kujawa

#### Institutional Address

Department of Mathematics University of Oklahoma Norman, OK 73019 kujawa@math.ou.edu https://math.ou.edu/~kujawa 405-325-6711

#### Education

2003	Ph.D. Mathematics	University of Oregon
	Thesis Advisor: Jonatha	n Brundan
	Thesis: "The Representa	tion Theory of the Supergroup $\operatorname{GL}(m n)$ "
1999	M.S. Mathematics	University of Oregon
1997	B.A. Mathematics	Gustavus Adolphus College
1995 - 96		Budapest Semesters in Mathematics

#### Academic Positions

2017 - present	Professor of Mathematics	University of Oklahoma
2012 - 2017	Associate Professor of Mathematics	University of Oklahoma
Spring 2015	Visiting Research Fellow	Mittag-Leffler Institute
2007 - 2012	Assistant Professor of Mathematics	University of Oklahoma
Spring 2008	Postdoctoral Member	Mathematical Sciences Research Institute
2004-07	NSF Postdoctoral Fellow	University of Georgia
	Senior Sponsoring Scientist: Daniel Nakano	
2004 - 05	Franklin Teaching Fellow	University of Georgia
2003	Postdoctoral Fellow	University of Toronto
1997-03	Graduate Teaching Fellow	University of Oregon

#### **Research Grants: Principal Investigator**

- 2022 27 Simons Foundation Collaboration Grant
- 2020 24 SQuaRE Research Group, American Institute of Mathematics (with N. Davidson, R. Muth, and J. Zhu)
- 2017 22 Simons Foundation Collaboration Grant
- 2016 17 NSA Research Grant (H98230-16-0055)
- 2012 16 NSF Research Grant (DMS-1160763)
- 2014 NSF Conference Grant (DMS-1406933)
- 2011 12 NSA Research Grant (H98230-11-1-0127)
- 2007 11 NSF Research Grant (DMS-0734226)
- 2004 07 NSF Postdoctoral Fellowship (DMS-0402916)

#### Other Grants and Awards

- 2022 Nancy Scofield Hester Presidential Professorship, University of Oklahoma.
- 2017 Plenary Talk, AMS Sectional Meeting, U. Central Florida, Orlando, FL.
- 2012 Irene Rothbaum Outstanding Assistant Professor
- 2011, 2012 OU College of Arts and Sciences Junior Faculty Summer Fellowship
- 2008, 2012 OU Vice President for Research Travel Grants
- 2006 AMS/NSF Travel Grant to attend the 2006 ICM
- 2002 D. K. Harrison Research Award, University of Oregon

#### **Research Interests**

Representation theory and Lie theory. Particularly their connections to algebraic geometry, low-dimensional topology, and algebraic combinatorics.

#### Publications

- [1] Superalgebra deformations of web categories: finite webs, (with N. Davidson, R. Muth, and J. Zhu), *submitted*, (2023).
- [2] A survey of support theories for Lie superalgebras and finite supergroup schemes, (with C. Drupieski), *submitted*, (2022).
- [3] Support varieties for Lie superalgebras in characteristic 2, (with C. Drupieski), *submitted*, (2022).
- [4] Webs of type P, (with N. Davidson and R. Muth), submitted, (2021).
- [5] Howe duality of type P, (with N. Davidson and R. Muth), submitted, (2021).
- [6] Quantum webs of type Q, (with G. Brown and N. Davidson), submitted, (2019).
- [7] Positivity and web bases for Specht modules of Hecke algebras, (with S. Heard), Int. Math. Res. Notices, to appear.
- [8] Troesch complexes and cohomology for strict polynomial superfunctors, (with C. Drupieski), J. Pure Appl. Algebra, Volume 226, Issue 12, (2022).
- [9] M-traces in (non-unimodular) pivotal categories, (with N. Geer and B. Patureau-Mirand), Algebras Represent. Theory, 25, 759-776 (2022).
- [10] Complexity and support varieties for type P Lie superalgebras, (with B. Boe), Math. Res. Lett., Volume 29, no. 1, 59-100 (2022).
- [11] Webs of type Q, (with G. Brown), Algebraic Combin., Volume 4, no. 6 (2021), 1027-1072.
- [12] Support schemes for infinitesimal unipotent supergroups, (with C. Drupieski), Advances in Math., 384, (2021).
- [13] Support varieties and modules of finite projective dimension for modular Lie superalgebras, (with C. Drupieski, appendix by L. Avramov and S. Iyengar), Algebra & Number Theory, 15 no. 5 (2021).
- [14] Graded analogues of one-parameter subgroups and applications to the cohomology of  $GL_{m|n(r)}$ , (with C. Drupieski), Advances in Math., 348, (2019), 277-352.
- [15] On support varieties for Lie superalgebras and finite supergroup schemes, (with C. Drupieski), J. of Algebra, 525, (2019), 64-110.
- [16] On the cohomological spectrum and support varieties for infinitesimal unipotent supergroup schemes, (with C. Drupieski), Adv. in Algebra, Springer Proc. Math. Stat., 277, (2019).
- [17] A basis theorem for the degenerate affine Brauer-Clifford supercategory, (with J. Brundan and J. Comes), Canad. J. Math., 71 (5), (2019), 1061-1101.
- [18] Geometric Schur duality of classical type, (with H. Bao, Y. Li, W. Wang), Transformation Groups, 23, (2018), 329–389.
- [19] Tensor triangular geometry for classical Lie superalgebras, (with B. Boe and D. Nakano), Advances in Math., 314, (2017), 228–277.

#### Publications, continued

- [20] The marked Brauer category, (with B. Tharp), J. London Math. Soc. 95, (2017), No. 2, 393—413
- [21] Presenting Schur superalgebras, (with H. El Turkey), *Pacific J. Math.*, 262, (2013), No. 2, 285—316.
- [22] Ambidextrous objects and trace functions for nonsemisimple categories, (with N. Geer and B. Patureau-Mirand), Proc. Amer. Math. Soc., 141, (2013), no. 9.
- [23] The generalized Kac-Wakimoto conjecture and support varieties for the Lie superalgebra  $\mathfrak{osp}(m|2n)$ , SE Lie Theory Conf. Proc., Proc. Symp. Pure Math., 86, (2012).
- [24] Modified Traces on Deligne's Category  $\operatorname{Rep}(S_t)$ , (with J. Comes), J. Algebraic Combin., 36 (2012), no. 4, 541–560.
- [25] Complexity for modules over the classical Lie superalgebra gl(m|n), (with B. Boe and D. Nakano), Compositio Math., 148, Issue 5, (2012), 1561–1592.
- [26] Degenerate affine Hecke-Clifford algebras and type Q Lie superalgebras, (with D. Hill and J. Sussan), Math. Zeit., Volume 268, Numbers 3-4 (2011), 1091–1158.
- [27] Generalized trace and modified dimension functions on ribbon categories, (with N. Geer and B. Patureau-Mirand), Selecta Math., Volume 17, Issue 2 (2011), 453–504.
- [28] Complexity and module varieties for classical Lie superalgebras, (with B. Boe and D. Nakano), Int. Math. Res. Notices, no. 3 (2011), 696–724.
- [29] Cohomology and support varieties for Lie superalgebras, (with B. Boe and D. Nakano), Trans. Amer. Math. Soc., 362 (2010), 6551–6590.
- [30] Cohomology and support varieties for Lie superalgebras II, (with B. Boe and D. Nakano), Proc. London Math. Soc., 98 (2009), no. 1, 19–44.
- [31] On Kostant's theorem for Lie algebra cohomology, (with UGA VIGRE Algebra Group), Contemp. Math., 478 (2009) 39-60.
- [32] Cohomology and support varieties for the Lie superalgebra W(n), (with I. Bağcı and D. Nakano), Int. Math. Res. Notices, Article ID: rnn115, (2008).
- [33] Support varieties for Weyl modules over bad primes, (with UGA VIGRE Algebra Group), J. Algebra, 312 no 2. (2007), 602–633.
- [34] The Steinberg tensor product theorem for GL(m|n), Contemp. Math., 413 (2006), 123–132.
- [35] Representation type of Schur superalgebras, (with D. Hemmer and D. Nakano), J. Group Theory, 9 no 3. (2006), 283–306.
- [36] Crystal structures arising from representations of GL(m|n), Rep. Theory, 10 (2006), 49–85.
- [37] Varieties of nilpotent elements for simple Lie algebras II: bad primes, (with UGA VIGRE Algebra Group), J. Algebra, 292 no 1. (2005), 65–99.
- [38] A new proof of the Mullineux conjecture, (with J. Brundan), J. Algebraic Combin., 18, no 1. (2003), 13–39.

## Conferences and Invited Talks

2023	April March	AMS Central Section Meeting Special Session, U. of Cincinnati, Cincinnati, OH. AMS Southeastern Section Meeting Special Session, GA Tech, Atlanta, GA.
2022	August July June March	<ul> <li>Symmetric Spaces, Their Generalizations, and Special Functions, Univ. of Ottawa, Canada.</li> <li>New directions in group theory and triangulated categories, online.</li> <li>Homological Comm. Algebra and Related Topics, Georgia Southern Univ., Savannah, GA.</li> <li>AMS Southeastern Section Meeting Special Session.</li> <li>(canceled due to covid-19)</li> </ul>
2021	November May April	AMS Southeastern Section Meeting Special Session, online. AMS Western Section Meeting Special Session, online. Superalgebra Theory and Representations Seminar (STARS), BGU-BIU-WIS, Israel.
2020	October October August March	New Trends in Rep. Theory (three talks), Hausdorff Institute of Math., Bonn, Germany. AMS Western Section Meeting Special Session, online. Cohomology of Finite Groups: Interactions and Apps., MFO, Oberwolfach, Germany. AMS SE Section Meeting Special Session, Univ. of Virginia, Charlottesville, VA. (canceled due to covid-19) Collequium. Beed College
2019	December September July June March	Algebraic and Geometric Categorification, BIRS-CMO, Oaxaca, Mexico. AMS Central Section Meeting Special Session, UW-Madison, Madison, WI. Reps. of monoidal categories and 2-categories, Univ. of East Anglia, Norwich, UK. Vietnam-USA Joint Math. Meeting Special Session, Quy Nhon, Vietnam AMS SE Section Meeting Special Session, Auburn Univ., Auburn, AL.
2018	September February January	Interactions of low-dim. topology and "higher" representation theory, Universität Zürich. Southwest Local Algebra Meeting, University of Arkansas. Colloquium and Seminar, University of Oregon.
2017	December October July July March January	<ul> <li>Rep. Theory of Symmetric Groups and Related Algebras, IMS NUS, Singapore.</li> <li>Plenary talk, AMS SE Section Meeting, Univ. of Central Florida, Orlando, FL.</li> <li>Mathematical Congress of the Americas Special Session, Montréal, Canada.</li> <li>Workshop on Rep. Theory of Lie Superalg. and related topics, NCTS, Taipei, Taiwan.</li> <li>AMS SE Section Meeting Special Session, College of Charleston, Charleston, SC.</li> <li>AMS National Meeting Special Session, Atlanta, GA.</li> </ul>
2016	January	AMS National Meeting Special Session, Seattle, WA.
2015	October October May March January	<ul> <li>Colloquium, DePaul University.</li> <li>Algebra and Combinatorics Seminar, Loyola University.</li> <li>Representation Theory Workshop, Uppsala, Sweden.</li> <li>Interaction of Rep. Theory with Geometry and Combinatorics, Bonn, Germany.</li> <li>Rep. Theory, Categorification, and Noncomm. Algebra, UNAM, Mexico City.</li> </ul>
2014	October October September September May April March	Commutative Algebra Seminar, University of Utah. Colloquium, Utah State University. Lie Theory Seminar, University of Colorado. Algebraic Lie Theory, ICMS, Edinburgh, Scotland. AMS Central Section Meeting Special Session, UW-Eau Claire, Eau Claire, WI. Southeast Lie Theory Conference, University of Georgia. Great Plains Combinatorics Conference, University of Kansas. AMS SE Section Meeting Special Session, Univ. of Tennessee, Knoxville, TN.

# Conferences and Invited Talks, continued

2013	October May April	<ul><li>AMS Eastern Section Meeting Special Session, Temple Univ., Philedelphia, PA.</li><li>Workshop on Super Rep. Theory, Academia Sinica, Taipei, Taiwan.</li><li>AMS Central Section Meeting Special Session, Univ. of Colorado, Boulder, CO.</li></ul>
2012	October September May March March	<ul> <li>AMS SE Section Meeting Special Session, Tulane University, New Orleans, LA.</li> <li>New York Algebra Colloquium, CUNY, NYC, NY.</li> <li>AMS Eastern Section Meeting Special Session, RIT, Rochester, NY.</li> <li>Lie Theory Seminar, University of CA, Riverside</li> <li>AMS Central Section Meeting Special Session, Univ. of Kansas, Lawrence, KS.</li> <li>AMS SE Section Meeting Special Session (two talks), USF, Tampa, FL.</li> </ul>
2011	October October September March	Colloquium, Utah State University. AMS Western Section Meeting Special Session, Univ. of Utah, Salt Lake City, UT. Algebraic Representation Theory Conference, Uppsala University, Sweden. Representation Theory Seminar, Virginia Tech.
2010	May April March January	Southeast Lie Theory Conference, University of Georgia. AMS Central Section Meeting Special Session, Macalester College, St. Paul, MN. Combinatorial Rep. Theory Workshop, MFO, Oberwolfach, Germany. AMS National Meeting Special Session, San Francisco, CA.
2009	November October July	Algebra and Combinatorics Seminar, Texas A & M University. AMS Central Section Meeting Special Session, Baylor University, Waco, TX. LMS Symposium on Comb. Geo. Structures in Rep. Theory, Durham, UK.
2008	October October September July April March February	AMS Central Section Meeting Special Session, Kalamazoo, MI. AMS Western Section Meeting Special Session, Vancouver, Canada. Rep. Theory, Geometry, and Combinatorics Seminar, Univ. of Cal., Berkeley, CA. Summer School on Quantum Grps and Lie Theory, ECNU, Shanghai, China. Conference on Homological Methods in Rep. Theory, MSRI, Berkeley, CA. AMS SE Section Meeting Special Session, Baton Rouge, LA. Millican Colloquium, University of North Texas.
2007	November September May March January	<ul> <li>AMS SE Section Meeting Special Session, Murfreesboro, TN.</li> <li>Group Embeddings: Geometry and Representations, BIRS, Banff, Canada.</li> <li>Algebraic Lie Theory, BIRS, Banff, Canada.</li> <li>AMS SE Section Meeting Special Session, Davidson, NC.</li> <li>AMS National Meeting Special Session, New Orleans, LA.</li> </ul>
2006	November August February	Algebra Seminar, University of Toledo. Conference on Ass. and Non-ass. Alg. Structures, Oviedo, Spain. Algebra Seminar, University of Virginia.
2005	October October September June March January	<ul> <li>Colloquium, University of Southern Alabama.</li> <li>Algebra Seminar, University of Southern Alabama.</li> <li>Algebra Seminar, University of Virginia.</li> <li>Conference on Alg. and Finite Reductive Groups, EPFL, Lausanne, Switzerland.</li> <li>Colloquium, Kansas State University.</li> <li>AMS National Meeting Special Session, Atlanta, GA.</li> </ul>
2004	October July	Colloquium, University of Toledo. AMS Summer Res. Conf.: Rep. of Alg. Groups, Quant. Groups, and Lie Alg., Snowbird, UT.
2003	January	Contributed Talk, AMS National Meeting, Baltimore, MD.
2002	July June	International Conf. on Rep. of Algebras, X, Fields Institute, Toronto, ON. AMS Summer Res. Conf.: Groups, Reps. and Cohomology, Mount Holyoke College, MA.

### Other Presentations

2023	January	Graduate Student Seminar, University of Oklahoma.
2022	March	Algebra Seminar, University of Oklahoma.
2021	November	Algebra Seminar, University of Oklahoma.
	April	Algebra Seminar, University of Oklahoma.
2019	November	GIT Seminar, University of Oklahoma.
	March	Algebra Seminar, University of Oklahoma.
	April	Graduate Student Seminar, University of Oklahoma.
2018	August	Algebra Seminar, University of Oklahoma.
2017	September	Algebra Seminar, University of Oklahoma.
	April	Graduate Student Seminar, University of Oklahoma.
2015	November	Graduate Student Seminar, University of Oklahoma.
2014	September	Algebra Seminar, University of Oklahoma.
	April	Algebra Seminar, University of Georgia.
	March	Algebra Seminar, University of Oklahoma.
2012	November	Algebra Seminar, University of Oklahoma.
	January	Algebra Seminar, University of Oklahoma.
2011	August	Algebra Seminar, University of Oklahoma.
	April	Undergraduate Colloquium, Lewis and Clark College, Portland, OR.
2010	August	Algebra Seminar, University of Oklahoma.
	May	VIGRE Summer School on Lie and Representation Theory, University of Georgia.
	April	Undergraduate Colloquium, Gustavus Adolphus College, St. Peter, MN.
	April	Mathematics Department Awards Dinner, University of Oklahoma.
	February	Algebra Seminar, University of Oklahoma (two talks).
2009	January	Graduate Student Recruitment Day, University of Oklahoma
	February	Algebra Seminar, University of Oklahoma (three talks).
2008	October	Graduate Student Seminar, University of Oklahoma.
	May	Seminar on representations of symmetric groups and closely related objects, MSRI.
	February	Postdoctoral Seminar, MSRI.
2007	October	Graduate Student Seminar, University of Oklahoma.
	September	Algebra Seminar, University of Oklahoma.
	Spring	VIGRE Graduate Seminar, University of Georgia.
2006	November	Algebra Seminar, University of Georgia.
	September	VIGRE Algebra Seminar, University of Georgia.
	February	Algebra Seminar, University of Georgia.
2005	December	VIGRE Graduate Seminar, University of Georgia.
	October	Algebra Seminar, University of Georgia.
2004	April	VIGRE Graduate Seminar, University of Georgia.
2004	October Senteral-	VIGKE Algebra Seminar (three talks), University of Georgia.
	September	Algebra Seminar, University of Georgia.
	February	Lie Theory Seminar (three talks) University of Georgia
	February	Lie Theory Seminar (three talks), University of Georgia.

# Teaching Experience

Intro. to Representation Theory I	Fall 2020, Fall 2012
Lie Theory I	Fall 2010
Lie Theory II	Spring 2016, Fall 2011
Graduate Abstract Algebra I	Fall 2022, Fall 2016, Fall 2009
Graduate Abstract Algebra II	Spring 2023, Spring 2017, Spring 2012, Spring 2010
Abstract Linear Algebra	Fall 2022, Fall 2013, Fall 2010
Discrete Mathematics	Spring 2021, Fall 2019, Spring 2018, Fall 2013
Undergraduate Abstract Algebra I/II	Fall 2018/Spring 2019, Fall 2011/Spring 2012, Fall 2008/Spring 2009
Honors Calculus IV	Spring 2010
Honors Calculus III	Fall 2009
Honors Calculus II	Spring 2020, Fall 2012, Spring 2009
Honors Calculus I	Fall 2008
New Graduate Student Summer Seminar	Summer 2002
Linear Algebra	Spring 2012, Spring 2005, Spring 2003
Introduction to Probability and Statistics	Summer 2001
Calculus III	Fall 2007, Winter 2003, Spring 2002
Calculus II	Fall 2017, Winter 2002, Spring 2001
Calculus I	Spring 2013, 2011, 2005, 2004, 2000; Fall 2021, 2015, 2001
Business Calculus II	Summer 1998
Business Calculus I	Fall 2003
Discrete Math III	Fall 2002, Summer 2000
Introduction to Mathematical Modeling	Fall 2004
Elementary Functions	Winter 2000, Summer 1998
College Algebra	Fall 2000, 1999, 1997; Winter 1999, 1998; Spring 1999, 1998

# **Teaching Education**

January 2004 – June 2005	Franklin Teaching Fellow Program, University of Georgia.
	A selective university-wide program to foster excellence in university teaching.
Winter 2000	Seminar on College Science Teaching, University of Oregon.
	An interdisciplinary seminar on teaching methods in university science courses.
Fall 1997	Seminar on Teaching Mathematics, University of Oregon.
	A weekly seminar on teaching mathematics in a university setting.

# Advising and Mentoring (Undergraduate)

Fall $2019 - $ Spring $2022$	LSAMP and McNair Scholars Mentor,
	Samuel Heard, University of Oklahoma.
Summer $2020$ – Spring $2021$	McNair Scholars Mentor,
	Skyler Moomey, University of Oklahoma.
Summer 2016	Reading Course on Algebraic Geometry,
	Haley Smith, Phillip Bretz, University of Oklahoma.
Fall $2010 - present$	Undergraduate Honors Thesis Advisor,
	Sam Heard, University of Oklahoma (2020-2022).
	Colton Sandvik, University of Oklahoma (2020-2021).
	Timothy Rhyker Benavidez, University of Oklahoma (2011-2014).
	Teresa Whitelaw, University of Oklahoma (2012-2014).
	William Goldenberg, University of Oklahoma (2012-2013).
	Lauren Lajos, University of Oklahoma (2011-2013).
	Patrick Orchard, University of Oklahoma (2010-2011).
Spring $2009 - \text{present}$	Vertical (Undergraduate + Graduate) Research Group, Univ. of Oklahoma.
Fall 2012 – Spring 2014	McNair Scholars Mentor,
	Timothy Rhyker Benavidez, University of Oklahoma.

### Advising and Mentoring (Graduate)

2019 - present	Ph.D. advisor,
	Erin Hausmann, University of Oklahoma.
	SMART Fellowship Recipient.
2018 - present	Ph.D. advisor,
	Ryan Reynolds, University of Oklahoma.
2018 - 2022	Ph.D. advisor,
	Joseph Randich, University of Oklahoma.
	SMART Fellowship Recipient.
	Now at the Naval Information Warfare Center (NIWC) Pacific.
2014 - 2018	Ph.D. advisor,
	Jieru Zhu, University of Oklahoma.
	Bullard Dissertation Completion Award Recipient.
	Now a post doctoral fellow at Université catholique de Louvain, Belgium.
2014-2017	Ph.D. advisor,
	Gordon Brown, University of Oklahoma.
	Now at Lockheed-Martin.
2013 - 2017	Ph.D. advisor,
	Benjiman Tharp, University of Oklahoma.
	Bullard Dissertation Completion Award Recipient.
	Now at Ingersoll-Rand.
2010 - 2014	Ph.D. advisor,
	Houssein El Turkey, University of Oklahoma.
	Now tenured at University of New Haven.

## Advising and Mentoring (Graduate), continued

2008 – present	Ph.D. committee member,
	Lucas Smith, University of Oklahoma (2022-present).
	James Beyer, University of Oklahoma (2021-present).
	Steven Lin, University of Oklahoma (2020-present).
	Jugal Talukdar, University of Oklahoma (Physics, 2020-present).
	Dustin Gaskins, University of Oklahoma (2019-present).
	Matthew Holtfrerich, University of Oklahoma (Physics, 2016-present).
	Jordan Danser, University of Oklahoma (2019-2022).
	Jessica Lajos, University of Oklahoma (2018-2021).
	Thomas Morgan, University of Oklahoma (2016-2019).
	Elizabeth Pacheco, University of Oklahoma (2013-2019).
	Colin Vernooy, University of Oklahoma (2014-2019).
	Kevin Haghi, University of Oklahoma (Meteorology, 2013-2017).
	William Carter, University of Oklahoma (2012-2015).
	Salam Turki, University of Oklahoma (2012-2015).
	Thomas Madsen, University of Oklahoma (2008-2014).
	Catherine Hall, University of Oklahoma (2008-2012).
	Kumar Balasubramanian, University of Oklahoma (2008-2012).
2005 - 2009	Secondary Ph.D. thesis advisor,
	Irfan Bağcı, University of Georgia.
	Now tenured at University of North Georgia.
2005 - 2007	Ph.D. committee member,
	Kenyon Platt, University of Georgia.

### Advising and Mentoring (Postdoctoral)

2022 - present	Postdoctoral Mentor,
	Lauren Grimley, University of Oklahoma.
2016 - 2019	Postdoctoral Mentor,
	Nick Davidson, University of Oklahoma.
	Tenure track at College of Charleston, Charleston, SC.
2010 - 2012	Postdoctoral Mentor,
	Lei Zhao, University of Oklahoma.
	Now at TF Securities, Beijing, China.
2008 - 2011	Postdoctoral Mentor,
	Stephen Spallone, University of Oklahoma.
	Tenured at IISER Pune, Pune, India.

### Outreach

Spring $2014 - \text{present}$	Author of a bi-monthly column on mathematics for 3 Quarks Daily.
Fall 2007 – Fall 2021	High School Math Day Co-organizer, Univ. of Oklahoma.
Fall 2010 – Fall 2015	Faculty Panelist for Career Recruiter Day, Univ. of Oklahoma.
Fall 2008 – Spring 2013	Principal author of the OU Math Club blog.
Fall 2008 – Spring 2012	Advisor to the undergraduate OU Math Club
Winter 2004, Winter 2005	Mathematician, Barrow Elementary Career Day, Athens, GA.

## Service Within the Mathematical Community

Summer 2024	Co-organizer, Conference on Lie and Representation Theory, Univ. of Georgia.
Spring 2024	Co-organizer, SLAM Algebra Conference, Univ. of Oklahoma.
Fall 2023	Co-organizer, AMS Special Session, Mobile, Alabama.
Spring 2021 – present	Editorial board member, J. of Algebra.
Fall 2003 – present	Referee for Publ. of IHES, Compositio Math., Duke Math J., Proc. LMS,
	Proc. AMS, Comm. Math. Physics, Trans. Groups, Ann. Inst. Fourier,
	J. of Algebra, J. of Alg. Comb., Comm. in Algebra, J. Pure Appl. Algebra,
	J. of Comb. Theory-A, Acta Math. Sinica, Proc. Symp. of Pure Math.
	Glasgow Math. J., Quaestiones Math., Canadian J. of Math., Alg. Comb., etc.
Fall 2003 – present	Reviewer for Mathematical Reviews.
Fall 2018 – present	MSRI Academic Sponsors Day Committee member; Chair for 2020 Sponsors Day.
Spring 2019	External PhD thesis examiner,
	Jyotirmoy Ganguly, IISER Pune, Pune, India.
Spring 2019	Co-organizer, AMS Special Session, Honolulu, Hawaii.
Fall 2018	Co-organizer, AMS Special Session, San Francisco, California.
Fall 2014 – Fall 2018	MSRI Academic Sponsors Executive Committee member.
Fall 2017	Co-organizer, AMS Special Session, Orlando, Florida.
	Invited grant panelist for the National Science Foundation (NSF) (twice).
	Invited grant reviewer for the U.S.–Israel Binational Science Foundation (three times).
Spring 2011 – 2015	Invited grant reviewer for the National Security Agency.
Fall 2014	Co-organizer of Algebraic Lie Theory Conference, ICMS, Edinburgh, Scotland.
Fall 2011	Co-organizer, AMS Special Session, Lincoln, Nebraska.

### Service Within the University

Fall $2022 - present$	Math Dept. Executive Committee (Committee A), Univ. of Oklahoma.
Spring 2023	Associate Chair, Dept. of Mathematics, Univ. of Oklahoma.
Fall 2019 – Fall 2022	Retirement Plans Management Committee Member, Univ. of Oklahoma.
$Fall \ 2019 - Spring \ 2020$	Search Committee Member, Univ. of Oklahoma,
	Math Faculty Position.
Spring 2016 – Fall 2021	Associate Chair, Dept. of Mathematics, Univ. of Oklahoma.
Fall $2019 - $ Spring $2020$	Search Committee Member, Univ. of Oklahoma,
	AMO/CM Faculty Position, Physics Department.
Fall 2015 – Fall 2016	Search Committee Chair, Univ. of Oklahoma,
	First Year Mathematics Director Position.
Fall $2012 - Fall 2013$	Math Dept. Executive Committee (Committee A), Univ. of Oklahoma.
Fall $2011 - $ Spring $2012$	Search Committee Chair, Univ. of Oklahoma,
	Math Education Faculty Position.
Fall $2010 - $ Spring $2011$	Search Committee Member, Univ. of Oklahoma,
	Math Education Faculty Position.
Fall $2009 - $ Spring $2010$	Search Committee Member, Univ. of Oklahoma,
	Postdoctoral Faculty Position.
Fall $2004 - $ Spring $2007$	Algebra Seminar Coordinator, Univ. of Georgia.
Winter $2003 - $ Spring $2007$	VIGRE Algebra Group Member, Univ. of Georgia.
Winter 2003 – Spring 2005	Lie Theory Seminar Coordinator, Univ. of Georgia.