

Houssein El Turkey

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Education

- 2008–2014 **Ph.D., Mathematics**, *University of Oklahoma*, OK, USA.
Dissertation: *Complexity of Modules over Lie Superalgebras*. Advisor: Prof. J. Kujawa.
- 2006–2008 **M.S., Mathematics**, *The American University of Beirut*, Beirut, Lebanon.
Thesis: *Generalizations of Boolean Rings*. Advisor: Prof. H. Abu Khuzam
- 2002–2006 **B.S., Mathematics**, *Beirut Arab University*, Beirut, Lebanon.
Undergraduate Thesis: *El-Gamal Cryptosystems*. Advisor: Prof. A. Kassab

Academic Positions

- 2017–Present **Mathematics Coordinator**, *University of New Haven*, CT, USA.
- 2014–Present **Assistant Professor, Mathematics**, *University of New Haven*, CT, USA.
- 2008–2014 **Graduate Teaching Assistant, Mathematics**, *University of Oklahoma*, OK, USA.
- 2006–2008 **Graduate Assistant, Mathematics**, *The American University of Beirut*, Lebanon.

Teaching Experience

Courses Taught

- 2014–Present **University of New Haven.**
- Quantitative Reasoning (2 Recitation sections, S15, SUII18)
 - Business Calculus (Recitation section, F15)
 - Calculus I (SUI15, 2 sections in F16, SUI17, 3 sections in F17, SUII18, 2 sections in F18 including Honors section, 2 sections in F19 including Honors section)
 - Calculus II (2 sections in F14, S15, substituted for 2 sections in F15, 2 sections in S16, Honors section in S19)
 - Calculus III (F15, SUII 16, 2 sections in S17)
 - Foundations of Mathematics (S18, S19)
 - Introduction to Number Theory (F16)
 - Linear Algebra (cross-listed with Methods of Engineering Mathematics F17)
 - Modern Algebra (F15; Independent Study with 3 students in S16; Independent Study with one student in S17)
 - Topics Course: Cryptography (Independent Study with one student in SUII17)
 - Department Seminar (F15)
 - Independent Study (1 cr./ 1 student in F15, S16, F16; 1 cr./2 students SUII16; 1 cr./2 students in F17; 2 cr./2 students in S18; 1 cr./1 student in F18, S19; 1 cr./2 students in F19)
- 2008–2014 **University of Oklahoma.**
- College Algebra (F10)
 - Pre-Calculus and Trigonometry (F13, Substitute Lecturer for 2 months)
 - Pre-Calculus For Business, Life and Social Sciences (S12, S12)
 - Calculus and Analytic Geometry I (SU12, Recitation Section in F09)
 - Calculus and Analytic Geometry II (SU10, SU11, SU13, Recitation Sections in S10, F11, F12, F13)

Research Interests

Representation Theory of Lie Superalgebras; Combinatorics (Anti-Ramsey Theory); Undergraduate Mathematics Education.

Undergraduate Research

2014–Present **University of New Haven.**

- Rainbow Number of Linear Equations in Four Variables, with Spencer Hopwood (F19–Present)
- Rainbow Number of Linear Equations in Three Variables, with Nathan Waskiewicz (F18–Present)
- Frobenius Number of Numerical Semigroups, with Alec Shackett and Andrew Svitlik (F17–S18)
- Covering Number of Finite Rings, with Cassandra Pray (F15–S17)

Publications

The publications in pure mathematics have equal contributions. Authorship of SoTL articles is ordered by level of contribution.

Published Book Chapter

- Savic, M., Karakok, G., Tang, G., **El Turkey, H.**, & Naccaratto, E. (2017). Formative Assessment of Creativity in Undergraduate Mathematics: Using a Creativity-in-Progress Rubric (CPR) on Proving. An invited book chapter to R. Leiken & B. Sriraman, editors. *Mathematical Creativity and Giftedness, Interdisciplinary Perspectives from Mathematics and Beyond*, Springer International Publishing AG, 23–46.

Peer-Reviewed Journal Articles

- **El Turkey, H.**, Shackett, A., & Svitlik, A. (In-press). Exploring Bounds for the Frobenius Number. *Mathematics Exchange*.
- **El Turkey, H.**, Turki, S., & Kottegoda, Y. (In-press). Two Implementations of Pre-class Readings in Calculus Courses. *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*. Available at <https://doi.org/10.1080/10511970.2019.1666331>.
- **El Turkey, H.** (2018). Complexity of Simple Modules over Lie Superalgebra $\text{osp}(k|2)$. *Journal of Pure and Applied Algebra*, **222**(1), 181–190.
- **El Turkey, H.**, Tang, G., Savic, M., Karakok, G., & Cilli-Turner, E. (2018). The Creativity-in-Progress Rubric (CPR) on Proving: Two Teaching Implementations and Students' Reported Usage. *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, **28**(1), 57–79. Available at <http://dx.doi.org/10.1080/10511970.2017.1346735>.
- Omar, M., Karakok, G., Savic, M., **El Turkey, H.**, & Tang, G. (2018). “I Felt Like a Mathematician”: Homework Problems to Promote Creative Effort and Metacognition. *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*. Available at <https://doi.org/10.1080/10511970.2018.1475435>.
- Tang, G., **El Turkey, H.**, Cilli-Turner, E., Savic, M., Karakok, G., & Plaxco, D. (2017). Inquiry as an Entry Point to Equity in the Classroom, *International Journal of Mathematical Education in Science and Technology*, **48**(1), S4–S15.
- Liu, D. and **El Turkey, H.** (2017). Exploration of Task Performance Tests in Physics Laboratory. *European Journal of Physics*, **38**(6), 065701 (9pp).
- **El Turkey, H.** and Pray, C. (2017). A Note on the Covering Number of Some Finite Rings. *Minnesota Journal of Undergraduate Mathematics*, **2**(1). Available at: <https://mjum.math.umn.edu/index.php/mjum/article/view/41>.

- **El Turkey, H.** (2016). Complexity of Modules over Lie Superalgebras. *Journal of Algebra*, **445**, 365–393.
- **El Turkey, H.** and Kujawa, J. (2013), Presenting Schur Superalgebras. *Pacific Journal of Mathematics*, **262**(2), 285–316.

Refereed Conference Proceedings

- Cilli-Turner, E., Savic, M., **El Turkey, H.**, & Karakok, G. (2019). An Initial Investigation into Teacher Actions that Specifically Foster Mathematical Creativity. In: M. Nolte, editor. Proceedings of the **11th International Conference on Mathematical Creativity and Giftedness**, Hamburg, Germany.
- Savic, M., **El Turkey, H.**, Tang, G., Karakok, G., Cilli-Turner, E., Plaxco, D., & Omar, M. (2017). Pedagogical practices that foster mathematical creativity at tertiary-level proof-based courses. In: D. Pitta–Pantazi, editors. Proceedings of the **10th International Conference on Mathematical Creativity and Giftedness**, Nicosia, Cyprus. http://www.cyprusconferences.org/mcg10/files/Proceedings_MCG10_FinalPublication.pdf
- Turki, S. and **El Turkey, H.** (2017). Implementation of Pre and Post Class Readings in Calculus. In: A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, S. Brown editors. Proceedings of the **20th Annual Conference on Research in Undergraduate Mathematics Education**, San Diego, CA. <http://sigmaa.maa.org/rume/RUME20.pdf>
- Savic, M., Plaxco, D., Wenger, M., Cilli-Turner, E., Tang, G., **El Turkey, H.**, & Karakok, G. (2017). C×N: Investigating the creative proving process using neuroscience methods. In: A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, S. Brown editors. Proceedings of the **20th Annual Conference on Research in Undergraduate Mathematics Education**, San Diego, CA. <http://sigmaa.maa.org/rume/RUME20.pdf>
- Tang, G., **El Turkey, H.**, Cilli-Turner, E., Savic, M., Karakok, G., & Plaxco, D. (2017). Inquiry as an access point to equity in the classroom. In: A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, S. Brown editors. Proceedings of the **20th Annual Conference on Research in Undergraduate Mathematics Education**, San Diego, CA. <http://sigmaa.maa.org/rume/RUME20.pdf>
- Savic, M., **El Turkey, H.**, Tang, G., Karakok, G., Cilli-Turner, E., Plaxco, D., & Omar, M. (2017). Pedagogical practices for fostering mathematical creativity in proof-based courses: Three case studies. In: A. Weinberg, C. Rasmussen, J. Rabin, M. Wawro, S. Brown editors. Proceedings of the **20th Annual Conference on Research in Undergraduate Mathematics Education**, San Diego, CA. <http://sigmaa.maa.org/rume/RUME20.pdf>
- Karakok, G., Savic, M., Tang, G., & **El Turkey, H.** (2015). Mathematicians' Views on Undergraduate Students' Creativity. In: K. Krainer, N. Vondrova, editors. Proceedings of the **9th Congress of the European Society for Research in Mathematics Education**, Prague, Czech Republic, 1003–1009.
- Tang, G., **El Turkey, H.**, Savic, M., & Karakok, G. (2015). Exploration of Undergraduate Students' and Mathematicians' Perspectives on Creativity. In: T. Fukawa-Connelly, N.E. Infante, K. Keene, M. Zandieh, editors. Proceedings of the **18th Annual Conference on Research in Undergraduate Mathematics Education**, Pittsburgh, PA, 1008–1015. <http://sigmaa.maa.org/rume/RUME18-final.pdf>
- Savic, M., Karakok, G., Tang, G., & **El Turkey, H.** (2015). Developing a Creativity-in-Progress Rubric on Proving. In: T. Fukawa-Connelly, N.E. Infante, K. Keene, M. Zandieh, editors. Proceedings of the **18th Annual Conference on Research in Undergraduate Mathematics Education**, Pittsburgh, PA, 954–960. <http://sigmaa.maa.org/rume/RUME18-final.pdf>
- Savic, M., Karakok, G., Tang, G., **El Turkey, H.** & Stubblefield, M. (2015). How Can We Assess Undergraduate Students' Creativity in Proof and Proving? Proceedings of the **8th Annual Conference of Mathematical Creativity and Giftedness**, International Group for Mathematical Creativity and Giftedness, Denver, CO, 107–111. <https://drive.google.com/file/d/0B1W-oFlzfvpoB5Ma0g5RjZPRWc/view>

Submitted Journal Articles

- Ansaldi, K., **El Turkey, H.**, Hamm, J., Nu'Man, A., Warnberg, N., & Young, M. (Resubmitted with revisions). Rainbow Numbers of \mathbb{Z}_n for $a_1x_1 + a_2x_2 + a_3x_3 = b$.

Submitted Conference Proceedings

- **El Turkey, H.**, Karakok, G., Tang, G., Regier, P., Savic, M., & Cilli-Turner, E. (Submitted). Tasks to Foster Mathematical Creativity in Calculus I. Submitted to *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education*, Boston, MA.
- Tang, G., Savic, M., , Regier, P., & Cilli-Turner, E., Karakok, G., & **El Turkey, H.** (Submitted). Shifting Pedagogical Beliefs into Action through Teaching for Mathematical Creativity. Submitted to *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education*, Boston, MA.
- Cilli-Turner, E., , Savic, M., Karakok, G., **El Turkey, H.**, & Tang, G. (Submitted). Tertiary Students' Ever-changing Views on Mathematical Creativity. Submitted to *Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education*, Boston, MA.

Non Peer-Reviewed Articles

- Tang, G., Cilli-Turner, E., Savic, M., **El Turkey, H.**, Omar, M., & Karakok, G. (2019). Reflections on Teaching for Mathematical Creativity. *AMS Blogs*. <https://blogs.ams.org/matheducation/2019/01/15/reflections-on-teaching-for-mathematical-creativity/>
- Karakok, G., Savic, M., Tang, G., **El Turkey, H.**, Plaxco, D., & Naccarato, E. (2016). Creativity-in-Progress Rubric (CPR) on Proving: A Formative Assessment Tool for Proof-Based Courses. *MAA FOCUS*, **36**(1), February–March Issue of 2016.

Work in Progress

- **El Turkey, H.**, Karakok, G., Tang, G., Savic, M., Cilli-Turner, E., & Regier, P. Effects of Fostering Students' Mathematical Creativity on their Mathematical Identity.
- Ansaldi, K., **El Turkey, H.**, Hamm, J., Nu'Man, A., Warnberg, N., & Young, M. Rainbow Numbers of \mathbb{Z}_n for $a_1x_1 + a_2x_2 + a_3x_3 = b$.
- **El Turkey, H.**, Waskiecwiz, N., Turki, S. Exploring Rainbow Numbers of \mathbb{Z}_p for $x_1 + x_2 = 4x_3$.
- **El Turkey, H.**, Hopwood, S. Rainbow Numbers for Equations in Four Variables.

Other

- Karakok, G., **El Turkey, H.**, Savic, M., Tang, G., Naccarato, E., Plaxco, D. (2016). Creativity-in-Progress Rubric on Proving–Enhancing Student Creativity. A peer-reviewed paper for presentation at the *13th International Congress on Mathematical Education*, Hamburg, Germany. Note: ICME-13 DIDN'T DO PROCEEDINGS FOR ALL TOPICAL STUDY GROUPS.

Selected Presentations

Invited Speaker

- Apr 2019 “**Complexity of Modules over Various Lie Superalgebras**”, *American Mathematical Society (AMS) Eastern Sectional Meeting; University of Connecticut*, Hartford, CT, USA.
- Apr 2018 “**Exploring Intersections of Teaching for Creativity, Equity, and Inquiry Instruction**”, *Mathematics Teaching Seminar; University of Connecticut*, Storrs, CT, USA.
- Sep 2017 “**Complexity and z -complexity over Lie Superalgebra $\mathfrak{osp}(k|2)$** ”, *American Mathematical Society (AMS) Southeastern Sectional Meeting; University of Central Florida*, Orlando, FL, USA.

- Apr 2017 **“Can you buy 43 Chicken McNuggets?”**, *2017 PME Induction and Mathematics Awards Ceremony, The Rhode Island Beta Chapter of Pi Mu Epsilon; Rhode Island College, North Providence, RI, USA.*
- Apr 2016 **“Explicitly Valuing Mathematical Creativity in Proof-Based Courses”**, *Mathematics Education Seminar; University of Connecticut, Storrs, CT, USA.*
- Sep 2014 **“Complexity and z -complexity over Lie Superalgebras”**, *AMS Central Sectional Meeting; University of Wisconsin–Eau Claire, Eau Claire, WI, USA.*

Presenter

- Aug 2019 **“An Initial Investigation into Teacher Actions that Specifically Foster Mathematical Creativity”**, *The 11th International Mathematical Creativity and Giftedness Conference (MCG11)*, Joint presentation with E. Cilli-Turner and M. Savic, Hamburg, Germany.
- Jan 2018 **“Two Implementations of Pre-class Readings in Calculus”**, *Joint Mathematics Meetings*, San Diego, CA, USA.
- Jan 2018 **“Exploring the Intersection of Fostering Mathematical Creativity and Inquiry Teaching”**, *Joint Mathematics Meetings*, Joint presentation with M. Savic, San Diego, CA, USA.
- Feb 2017 **“Implementing Pre/Post Class Readings in Calculus”**, *The 20th Conference on Research in Undergraduate Mathematics Education*, San Diego, CA, USA.
- Feb 2017 **“Pedagogical Practices for Fostering Mathematical Creativity in Proof-Based Courses: Three Case Studies”**, *The 20th Conference on Research in Undergraduate Mathematics Education*, Joint presentation with M. Savic, G. Karakok, G. Tang, & M. Omar, San Diego, CA, USA.
- Aug 2016 **“Implementation of Pre-class Readings in Calculus”**, *Mathematical Association of America (MAA) MathFest*, OH, USA.
- Jan 2016 **“Addressing Creativity in an Introductory Proof Course”**, *Joint Mathematics Meetings*, Joint presentation with M. Savic, Seattle, OR, USA.
- Aug 2015 **“Discussing Mathematical Creativity at the Undergraduate Level”**, *MAA MathFest*, Washington DC., USA.
- Feb 2015 **“Exploration of Undergraduate Students’ and Mathematicians’ Perspectives on Creativity”**, *The 18th Conference on Research in Undergraduate Mathematics Education*, Pittsburgh, PA, USA.
- Nov 2014 **“A Research-Based Rubric to Assess Students’ Creativity in Proof and Proving”**, *MAA Northeastern Sectional Meeting; SCSU*, New Haven, CT, USA.
- Jun 2014 **“Utilizing a Research-Based Rubric to Assess Students’ Creativity in Proof and Proving”**, *The 17th Annual Legacy of R.L. Moore IBL Conference*, Joint presentation with M. Savic, G. Karakok, G. Tang, & M. Stubblefield, Denver, CO, USA.
- May 2014 **“Complexity of Modules over Lie superalgebras”**, *Southeastern Lie Theory Workshop; University of Georgia*, Athens, GA, USA.
- Apr 2013 **“Presenting Schur Superalgebras”**, *The 3rd Graduate Research Conference in Algebra and Representation Theory; Kansas State University*, Manhattan, KS, USA.
- Mar 2013 **“Complexity of the Simple and Kac Modules over $\mathfrak{osp}(2|2n)$ ”**, *TORA IV : Texas - Oklahoma Representations and Automorphic Forms IV; U. of North Texas*, Dallas, TX, USA.

Co-authored Talks/* is Presenter

- Jun 2019 **“University Instructors’ Pedagogical Changes as a Result of Focusing on Mathematical Creativity”**, *The 2nd International Conference on Applications of Mathematics to Nonlinear Sciences (AMNS-2019)*, G. Tang*, M. Savic*, H. El Turkey, E. Cilli-Turner, & G. Karakok, Nepal.

- Feb 2017 **“Inquiry as an Access Point to Equity”**, *The 20th Conference on Research in Undergraduate Mathematics Education*, G. Tang*, H. El Turkey, E. Cilli-Turner, M. Savic, D. Plaxco, & G. Karakok, San Diego, CA, USA.
- Feb 2017 **“ $C \times N$ Investigating the Creative Proving Process Using Neuroscience Methods”**, *The 20th Conference on Research in Undergraduate Mathematics Education*, M. Savic*, D. Plaxco*, M. Wenger, E. Cilli-Turner, G. Tang, H. El Turkey, & G. Karakok, San Diego, CA, USA.
- Nov 2016 **“The Covering Number of Some Finite Rings”**, *MAA Northeastern Sectional Meeting; Trinity College*, H. El Turkey and C. Pray*, Hartford, CT, USA.
- Nov 2016 **“Implementation of Pre-class Readings in Calculus”**, *MAA Northeastern Sectional Meeting; Trinity College*, S. Turki* and H. El Turkey, Hartford, CT, USA.
- Jul 2016 **“Creativity-in-Progress Rubric on Proving-Enhancing Student Creativity”**, *The 13th International Congress on Mathematical Education*, G. Karakok*, H. El Turkey, M. Savic, G. Tang, E. Naccarato, & D. Plaxco, Hamburg, Germany.
- Nov 2015 **“Using the Creativity-in-Progress Rubric in an Inquiry-Based Introductory Proof Course”**, *The 10th Southern Hemisphere Conference on the Teaching and Learning of Undergraduate Mathematics and Statistics*, G. Tang*, G. Karakok*, M. Savic, H. El Turkey, E. Naccarato, Brent Hancock, Port Elizabeth, South Africa.
- Oct 2015 **“Understanding the Proving Process with the Lens of Mathematical Creativity”**, *AMS Western Sectional Meeting; California State University*, G. Karakok*, G. Tang, H. El Turkey, E. Naccarato, D. Plaxco, Fullerton, CA, USA.
- Feb 2015 **“Understanding the Proving Process with the Lens of Mathematical Creativity”**, *The 18th Conference on Research in Undergraduate Mathematics Education*, M. Savic*, G. Karakok, G. Tang, H. El Turkey, Pittsburgh, PA, USA.

Poster

- May 2018 **“Implementations of Pre-class Readings in Calculus”**, *The Bucknall Conference on Effective Teaching Strategies; University of New Haven*, West Haven, CT, USA.
Poster presented by Dr. Salam Turki, Rhode Island College.
- Apr 2018 **“Exploring Bounds for the Frobenius Number”**, *Spuyten Duyvil Undergraduate Mathematics Conference; SCSU*, New Haven, CT, USA.
Poster presented by students: Alec Shackett & Andrew Svitlik.
- Oct 2011 **“Presenting Schur Superalgebras”**, *AMS Central Sectional Meeting; University of Nebraska*, Lincoln, NE, USA.
Poster mentored by Professor J. Kujawa.

Departmental Talks

- Apr 2018 **“Exploring Intersections of Teaching for Creativity, Equity, and Inquiry Instruction”**, *Department Seminar Series; University of New Haven*, West Haven, CT, USA.
- Mar 2017 **“McNugget Numbers”**, *Math & Physics Club; University of New Haven*, West Haven, CT, USA.
- Nov 2016 **“The Covering Number of Finite Rings”**, *Math Department Seminar; University of New Haven*, West Haven, CT, USA.
- Feb 2016 **“Explicitly Valuing Mathematical Creativity in Proof-Based Courses”**, *Math Department Seminar; University of New Haven*, West Haven, CT, USA.
- Nov 2014 **“Prime Numbers”**, *Math & Physics Club; University of New Haven*, West Haven, CT, USA.
- Nov 2014 **“Algebras...An Abstract Version of College Algebra”**, *Math Department Seminar; University of New Haven*, West Haven, CT, USA.

- Feb 2013 **“Left and Right Derived Functors”**, *Student Algebra Seminar; University of Oklahoma*, Norman, OK, USA.
- Feb 2012 **“Connection between Projective Representations and the Second Cohomology Group”**, *Graduate Student Seminar; University of Oklahoma*, Norman, OK, USA.
- May 2011 **“A Presentation of the Schur Algebra and Superalgebra”**, *Algebra and Representation Theory Seminar; University of Oklahoma*, Norman, OK, USA.
- Oct 2010 **“Schur-Weyl Duality between Partition Algebras and the Symmetric Group”**, *Student Algebra Seminar; University of Oklahoma*, Norman, OK, USA.

Selected Conferences & Workshops

- Jul 2019 **REUF Continuation Week: Research Experiences for Undergraduate Faculty**, *The American Institute of Mathematics*, San Jose, CA, USA.
- Jun 2018 **Inquiry-Based Learning Workshop**, *The Mathematical Association of America’s Carriage House*, Washington, D.C., USA.
- Jun 2018 **REUF: Research Experiences for Undergraduate Faculty**, *The American Institute of Mathematics*, San Jose, CA, USA.
- Jun 2018 **The 2018 Summer School on Lie Theory**, *University of Georgia*, Athens, GA, USA.
- May 2018 **The Bucknall Conference on Effective Teaching Strategies**, *University of New Haven*, West Haven, CT, USA.
- Apr 2018 **The Spuyten Duyvil Undergraduate Mathematics Conference**, *SCSU*, New Haven, CA, USA.
- Mar 2018 **Exploring Teaching and Learning Through Inquiry-Oriented Linear Algebra**, *UB-Yale STEM Seminar Series, University of Bridgeport*, Bridgeport, CT, USA.
- Feb 2018 **Critical Issues in Mathematics Education 2018: Access to mathematics by opening doors for students currently excluded from mathematics**, *MSRI*, Berkeley, CA, USA.
- Nov 2017 **MAA Northeastern Sectional Meeting**, *Sacred Heart University*, Fairfield, CT, USA.
- Apr 2017 **Embedded Support: How it helps, Why it works**, *Eastern Connecticut State University*, Willimantic, CT, USA.
- Nov 2016 **Transforming Undergraduate STEM Education: Implications for 21st Century Society**, *EAAC&U*, Boston, MA, USA.
- Nov 2016 **MAA Northeastern Sectional Meeting**, *Trinity College*, Hartford, CT, USA.
- Oct 2016 **Circle on the Road**, *Courant Institute of Mathematical Sciences*, New York University, New York, NY.
- Oct 2016 **RUME with a View**, *University of Oklahoma*, Norman, OK.
- May 2016 **Algebraic Groups, Quantum Groups and Geometry**, *University of Virginia*, Charlottesville, VA, USA.
- Aug 2015 **Project NExT Workshop**, *Washington DC., USA*.
- Jun 2015 **Conference on Representation Theory, Number Theory and Invariant Theory (In honor of Roger Howe)**, *Yale University*, New Haven, CT, USA.
- May 2015 **Conference on Representation Theory and Related Topics**, *University of Connecticut*, Storrs, CT, USA.
- Jan 2015 **Joint Mathematics Meetings**, *San Antonio, TX, USA*.
- Sep 2014 **Discovering the Art of Teaching Mathematics IBL Workshop**, *Quinnipiac University*, Hamden, CT, USA.
- Nov 2013 **Conference on Geometric Methods in Representation Theory**, *University of Missouri*, Columbia, MO, USA.
- Apr 2012 **AMS Central Sectional Meeting**, *University of Kansas*, Lawrence, KS, USA.

- Apr 2012 **TORA II : Texas - Oklahoma Representations and Automorphic Forms II**, Oklahoma State University, Stillwater, OK, USA.
- Jun 2011 **Southeastern Lie Theory Workshop III: Finite and Algebraic Groups**, University of Virginia, Charlottesville, VA, USA.
- May 2010 **Second Southeastern Lie Theory Conference and VIGRE Summer School**, University of Georgia, Athens, GA, USA.

Fellowships & Grants

Fellowships

2019–2022 **University Research Scholar.**

Appointment as a URS is intended to enhance the competitive position of faculty to secure external funding to continue their work. With this recognition, the University of New Haven provides additional support for University Research Scholars to develop preliminary results that will make subsequent grant proposals successful. This support includes both partial teaching workload release during the three academic years of the designation and a modest recovery (\$4000 per year) of ancillary research expenses.

2015–2016 **Project NExT Fellow.**

A professional development program of the MAA for recent Ph.D. graduates. Fellows attended panels, workshops, and talks to build skills in research, teaching, and undergraduate research. A mentoring and networking component is also included.

2008–2013 **Foundation Fellow.**

A five-year scholarship (\$ 5000 per year) program at the University of Oklahoma for Ph.D. students in addition to the regular tuition waiver and the monthly stipend.

Grants

Nov 2018 **Co-Principal Investigator**, *Mathematics Undergraduates' Attendance to MAA MathFest*, Elsevier Mathematical Sciences Sponsorship, \$5,000, not funded.

Oct 2018 **Senior Personnel**, *Collaborative Research: Reshaping Mathematical Identity by Valuing Creativity in Calculus*, NSF-IUSE, \$300,000, **funded**.

Nov 2017 **Principal Investigator**, *Fostering Creativity Through Research-based Task Design in Undergraduate Mathematics Courses*, Spencer Foundation, \$50,000, not funded.

Oct 2017 **Member of UNH Leadership Team**, *2018 HHMI Inclusive Excellence Grant*, Howard Hughes Medical Institute, \$ 5,042,711, not funded.

Jan 2017 **Co-Principal Investigator**, *I-SUCCESS: Inclusive Strategies for Undergraduate Course Coordination and Enhanced Student Success*, NSF, \$598,845, not funded.

Nov 2016 **Co-Principal Investigator**, *Undergraduates' Attendance to MAA MathFest*, Elsevier Mathematical Sciences Sponsorship, \$5,000, not funded.

Apr 2015 **Principal Investigator**, *Early Mathematician Grant*, Simons Foundation, \$4,000, not funded.

Travel Grants

Spring 2019 **Research Fund, University of New Haven**, *The International Conference on Mathematical Creativity and Giftedness–Hamburg, Germany*, \$2000, **funded**.

Summer 2019 **The American Institute of Mathematics**, *Continuation Proposal to Fund a Research Retreat for 6 Researchers*, **funded**.

Summer 2018 **The American Institute of Mathematics**, *REUF: Research Experiences for Undergraduate Faculty, San Jose, CA*, **funded**.

Summer 2018 **University of Georgia**, *2018 Summer School on Lie Theory–UGA, Athens, GA*, \$500, **funded**.

Summer 2018 **Academy of Inquiry-Based Learning**, *2018 IBL Workshop, Washington, D.C.*, \$300, **funded**.

- Spring 2018 **MSRI–Mathematical Sciences Research Institute**, *Critical Issues in Mathematics Education 2018*, Berkeley, CA, \$280, **funded**.
- Spring 2017 **Research Fund, University of New Haven**, *2018 Joint Mathematics Meetings–San Diego, CA*, \$1050, **funded**.
- Fall 2016 **Provost’s Office, University of New Haven**, *2016 AAC&U conference: Transforming Undergraduate STEM Education–Boston, MA*, \$1700, **funded**.
- Fall 2016 **American Mathematical Society**, *2017 Mathematical Congress of the Americas, Canada*, \$1500, not funded.
- Spring 2015 **AMS Simon’s Foundation**, *Two year travel support for early mathematicians*, \$4000, not funded.
- Spring 2014 **American Mathematical Society**, *2014 Joint Mathematics Meetings–Baltimore, MD*, \$500, **funded**.
- Spring 2014 **Robberson Conference Presentation & Creative Exhibition Travel Grant–Graduate College, University of Oklahoma**, *2014 Joint Mathematics Meetings–Baltimore, MD*, \$500, **funded**.
- Spring 2012 **American Mathematical Society**, *Spring AMS Central Sectional Meeting–University of Kansas, Lawrence, KS*, \$250, **funded**.
- Fall 2011 **American Mathematical Society**, *Fall AMS Central Sectional Meeting–University of Nebraska, Lincoln, NE*, \$250, **funded**.
- Summer 2011 **University of Virginia**, *Southeastern Lie Theory Workshop III–UVA, Charlottesville, VA*, \$500, **funded**.
- Summer 2010 **University of Georgia**, *VIGRE Summer School–UGA, Athens, GA*, \$500, **funded**.

Awards

- May 2019 **Faculty Merit Award**, *University of New Haven, CT, USA*.
- Apr 2014 **Certificate of Distinction for Outstanding Graduate Teaching Assistant**, *Provost Office, University of Oklahoma, OK, USA*.
- Apr 2013 **Overall Outstanding Graduate Student Award**, *Graduate Student Senate, University of Oklahoma, OK, USA*.
- Jun 2006 **Jamal Abdul-Naser Award for Academic Excellence**, *Beirut Arab University, Beirut, Lebanon*.
- 2002–2006 **Full Annual Scholarship**, *Beirut Arab University, Beirut, Lebanon*.

Nominations

- Apr 2019 **Excellence in Teaching Award, Full-Time Faculty**, *University of New Haven, CT, USA*, by students’ nominations.
- Apr 2018 **Excellence in Teaching Award, Full-Time Faculty-by students’ nominations**, *University of New Haven, CT, USA*, by students’ nominations.
- Apr 2018 **Excellence in Research or Creative Activity Award**, *University of New Haven, CT, USA*, by colleagues’ nominations.
- Oct 2017 **The Bucknall Excellence in Teaching Award**, *University of New Haven, CT, USA*, self-nominated.
- Apr 2016 **Excellence in Teaching, Full-Time Faculty**, *University of New Haven, CT, USA*, by colleague’s nomination.

Service

Mathematics Department-University of New Haven

- 2017–Present **Mathematics Coordinator**, Duties include: Transfer credit authorization, overrides into classes, scheduling of classes and faculty assignments, hiring part-time adjunct faculty, outreach activities, classroom observations, etc.
- 2019–Present **Department Curriculum Committee Chair**, We revise the mathematics curriculum, discuss the master's proposal, discuss and propose modifying existing programs, and propose new possible tracks such as a new 4+1 program between Math and Data Science.
- 2018-19 **Search Committee Chair**, Two searches for full-time non tenure-track Lecturer positions.
- 2018–Present **Calculus Committee Chair**, We have implemented a common final across all Calculus I sections and we ran few recitation classes for Calculus I & II. This includes selecting and training student tutors to lead the recitations.
- 2017-18 **Search Committee Member**, Two searches for Assistant Professor and Chair positions.
- 2017 **Pi Mu Epsilon Petition Faculty Advisor**, I helped the president of the Math and Physics Club in writing a petition to have a PME chapter at the university.
- 2016–Present **Academic Advising**, I have been the academic advisor of 15 students.
- 2015–Present **Master's Program Committee Member**, I worked on the financial analysis of the program and gave feedback on the subsequent drafts of the proposal.
- 2015–2018 **Department Awards Committee Chair**, Every Spring, we select 4 students in Mathematics and Physics for their academic excellence.
- 2014–2017 **Math & Physics Club Faculty Advisor**, Activities include: Field trips, game nights, presentations, etc.
- 2014–2016 **Department Core-Curriculum Committee Chair**, We coordinated with the Core Curriculum Task Force regarding the mathematics courses and we submitted the necessary forms for CC 3.1 category.
- 2014 **Mastery Test Committee Member**, I provided a pool of questions to be used on these tests.

College & University- University of New Haven

- 2019–2022 **Faculty Senate**, I was elected to the Faculty Senate for the 2019–2022 CAS seat.
- 2019 **CAS Awards Committee Member**, I helped in the organization process and I made the program for the ceremony.
- 2018–Present **Evaluator**, I evaluated 3 posters at the First Year Expo in Spring 2019; 3 posters in Fall 2018; 2 posters in Spring 2018.
- 2017–Present **Reviewer**, I reviewed 15 SURF applications in Spring 2018; 18 applications in Spring 2017.
- 2017-2019 **University Enrollment Management Advisory Committee**, We met twice to discuss the mission of the Committee.
- 2016–Present **Recommendation letter writer**, I have written letters of recommendations for 21 students for graduate schools, scholarships, tutoring positions in CLR, Honors Program, REU's, internships, etc.
- 2016–Present **Faculty Liaison**, Liaison of the UNH women's tennis team.
- 2015–2016 **Volunteer**, I read names of graduates during winter commencements.
- 2015 **CAS Awards Committee Member**, I helped in the logistics of the ceremony and I sent the emails to all students who were awarded.

Community

- 2018–2020 **Co-editor**, *Special Issue of Journal of Humanistic Mathematics*, I am co-editing with the Creativity Research Group a special issue on mathematical creativity.
- Jan 2019 **Co-organizer and Co-moderator**, *Joint Mathematics Meeting*, I co-organized and co-moderated the MAA contributed paper Session on Fostering Creativity in Undergraduate Mathematics, Baltimore, MD, USA.
- 2017–Present **Reviewer**, *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, I reviewed one article in Spring 2019; two articles in Summer 2018; one article in Fall 2017.
- Spring 2018 **Local Arrangements Committee Chair**, *MAA Northeastern Sectional Meeting*, University of New Haven, West Haven, CT, USA.
- Jan 2018 **Moderator**, *Joint Mathematics Meeting*, I moderated an MAA contributed paper Session on Number Theory (II), San Diego, CA, USA.
- Jan 2018 **Judge**, *Joint Mathematics Meeting*, I served as a judge in the MAA undergraduate student poster session, San Diego, CA, USA.
- Fall 2017 **Program Committee Member**, *MAA Northeastern Sectional Meeting*, We selected the plenary speakers, Sacred Heart University, Fairfield, CT, USA.
- Jan 2016 **Moderator**, *Joint Mathematics Meeting*, I moderated an MAA contributed paper Session on Algebra (II), Seattle, OR, USA.
- Fall 2016 **Local Arrangements Committee Member**, *MAA Northeastern Sectional Meeting*, Trinity College, Hartford, CT, USA.
- Aug 2016 **Co-Organizer**, *MAA MathFest*, Project NExT session on “Teaching and Assessing Proof-Writing”, Columbus, OH, USA.

Mathematics Department-University of Oklahoma

- 2012 **Graduate Committee Member**, Student Representative on the Department’s Graduate Committee.
- Spring 2012 **President**, Mathematics Graduate Students Association.
- Spring 2011–12 **Vice President**, Mathematics Graduate Students Association.
- 2011 **Organizer**, Graduate Student Seminar.
- 2010 **Organizer**, Student Algebra Seminar.

Memberships

- 2014–Present **Mathematical Association of America (MAA)**.
- 2010–Present **American Mathematical Society (AMS)**.

Computer Skills

L^AT_EX, Microsoft Office, Mathematica.