

Education

- 2011 **PhD**, *Mathematics, University of Colorado, Boulder.*
- 2004 **MS**, *Mathematics, Southern Illinois University, Carbondale.*
- 2001 **BS**, *Electrical Engineering & Mathematics, Southern Illinois University, Carbondale.*

Employment

- 2021–Present **Associate Professor of Mathematics**, *California State University, Sacramento.*
- 2016–2021 **Assistant Professor of Mathematics**, *California State University, Sacramento.*
- 2014–2016 **Visiting Assistant Professor of Mathematics**, *Hamilton College.*
- 2012–2014 **NSF International Research Fellow**, *Universität Münster, Germany.*
- 2011–2012 **Visiting Assistant Professor of Mathematics**, *Hamilton College.*

Invited Research Visits

- June 2022 **École Normale Supérieure - PSL**, *France, 1 month.*
- Nov. 2013 **Hausdorff Institute for Mathematics**, *Germany, 1 month.*

Selected Grants & Awards

- 2020–2023 **NSF Standard Grant**, *National Science Foundation.*
PI, *RUI: Geometry and Complexity in the Model Theory of Groups.*
AWARD NUMBER: DMS-1954127.
- 2019–2020 **Pedagogy Enhancement Award**, *California State University, Sacramento.*
Co-PI, *Making WeBWork a superior instructional option at Sacramento State.*
- 2017–2018 **Research and Creative Activity Award**, *California State University, Sacramento.*
PI, *Groups and geometries of finite Morley rank.*
- 2017–2018 **Pedagogy Enhancement Award**, *California State University, Sacramento.*
Co-PI, *Implementing WeBWork in Calculus Courses.*
- 2012–2014 **NSF International Research Fellowship**, *National Science Foundation.*
PI, *Multiply transitive and generically multiply transitive groups of finite Morley rank.*
AWARD NUMBER: OISE-1064446. HOST: Prof. Dr. Dr. Katrin Tent.

Articles

11. Tuna Altinel and Joshua Wiscons. Actions of $\text{Alt}(n)$ on groups of finite morley rank without involutions. Accepted in *Proc. Amer. Math. Soc.* Preprint, arXiv:2205.06173 [math.GR].
10. Luis Jaime Corredor, Adrien Deloro, and Joshua Wiscons. $\text{Sym}(n)$ - and $\text{Alt}(n)$ -modules with an additive dimension. *J. Algebra*, 623:1–33, 2023.
9. Adrien Deloro and Joshua Wiscons. The geometry of involutions in ranked groups with a TI-subgroup. *Bull. Lond. Math. Soc.*, 52:411–428, 2020.
8. Tuna Altinel and Joshua Wiscons. Toward the recognition of PGL_n via a high degree of generic transitivity. *Comm. Algebra*, 47(1):206–215, 2019.
7. Adrien Deloro and Joshua Wiscons. Simple groups of Morley rank 5 are bad. *J. Symb. Log.*, 83(3):1217–1228, 2018.
6. Tuna Altinel and Joshua Wiscons. Recognizing PGL_3 via generic 4-transitivity. *J. Eur.*

- Math. Soc. (JEMS)*, 20(6):1525–1559, 2018.
5. Joshua Wiscons. A reduction theorem for primitive binary permutation groups. *Bull. Lond. Math. Soc.*, 48(2):291–299, 2016.
 4. Joshua Wiscons. Groups of Morley rank 4. *J. Symb. Log.*, 81(1):65–79, 2016.
 3. Joshua Wiscons. Moufang sets of finite Morley rank of odd type. *J. Algebra*, 402:479–498, 2014.
 2. Josh Wiscons. On groups of finite Morley rank with a split BN -pair of rank 1. *J. Algebra*, 330(1):431–447, 2011.
 1. Josh Wiscons. Special abelian Moufang sets of finite Morley rank in characteristic 2. *J. Group Theory*, 13(1):71–82, 2010.

Open-Source Book

1. Joshua Wiscons. *Insolvability of the Quintic: An Inquiry-Based Approach to a Second Course in Abstract Algebra*. Available online at github.com/jwiscons/IBL-InsolvabilityOfQuintic.

Other Products

3. Joshua Wiscons. A short course on groups of finite Morley rank. Notes to support a mini-course on groups of finite Morley rank given at the Hausdorff Institute for Mathematics in November 2018. Available online at webpages.csus.edu/wiscons/research/GFMR-Minicourse-Notes.pdf
2. Joshua Wiscons. RComp.g. Code to compute the relational complexity of a permutation group in GAP. Available online at webpages.csus.edu/wiscons/research/code/RComp.html
1. Joshua Wiscons. Section on *Modular Arithmetic* in the book “An Introduction to Proof via Inquiry-Based Learning” by Dana C. Ernst. Available online at github.com/dcernst/IBL-IntroToProof.

Supervised Research

- 2021–22 Collaborating with one student on a project titled *On the relational complexity of $A\Gamma L_n$* . The student is partially supported by a research assistantship funded by NSF award DMS-1954127.
- 2021–22 Collaborating with two students on a project titled *On the minimal $\text{Sym}(n)$ - and $\text{Alt}(n)$ -modules with an additive dimension for $n \leq 6$* . One student was partially supported by a research assistantship funded by NSF award DMS-1954127.
- Summer 2018 Supervised one student on a project titled *The relational complexity of symmetric groups acting on partitions*. The student was supported by a Summer Undergraduate Research Experience (SURE) award through California State University, Sacramento.

Selected Talks

- Nov. 2022 *Geometry of involutions in ranked groups*. Panglobal Algebra and Logic Seminar, University of Colorado at Boulder (given virtually).
- July 2022 *Geometry of involutions in ranked groups*. Séminaire Logique Mathématique, Institut Camille Jordan, France.
- Sep. 2021 *Minimal representations of $\text{Sym}(n)$ and $\text{Alt}(n)$* . Groupes rangés : le retour, Institut Camille Jordan, France (given virtually).
- Mar. 2021 *The minimal faithful $\text{Sym}(n)$ - and $\text{Alt}(n)$ -modules*. Logic Seminar, Imperial College, United Kingdom (given virtually).
- Apr. 2020 *The geometry of involutions in groups of finite Morley rank*. Logic Colloquium, University of California, Berkeley (given virtually).

- May 2019 *Status of the classification of finite Morley rank actions with a high degree of generic transitivity*. Logic Colloquium, University of California, Los Angeles.
- Mar. 2019 *Status of the classification of finite Morley rank actions with a high degree of generic transitivity*. Logic Seminar, University of Illinois at Chicago.
- Nov. 2018 *A short course on groups of finite Morley rank*. Trimester Program on Logic and Algorithms in Group Theory, Hausdorff Institute for Mathematics, Germany.
- July 2017 *Reducing Cherlin's Conjecture for finite primitive binary groups to the almost simple case*. Dame Kathleen Ollerenshaw Combinatorics Day, University of Manchester, United Kingdom.
- Mar. 2017 *Geometries and small groups of finite Morley rank*. Logic Seminar, University of Colorado at Boulder.
- Oct. 2016 *Geometries and small groups of finite Morley rank*. BN-Pair Conference in honour of the 60th birthdays of Alexandre Borovik and Ali Nesin, Boğaziçi University, Turkey.
- Aug. 2016 *The status of Cherlin's conjecture for primitive structures of relational complexity 2*. Special session on *Homogeneous Structures: Model Theory Meets Universal Algebra*, Logic Colloquium 2016, University of Leeds, United Kingdom.
- July 2016 *An introduction to relational complexity: background, questions, and a few answers*. Workshop on the Model Theory of Finite and Pseudofinite Structures, University of Leeds, United Kingdom.
- Feb. 2016 *The relational complexity of finite permutation groups*. Mathematics Seminar, Colgate University.
- Jan. 2016 *The relational complexity of relational structures*. Séminaire Logique Mathématique, Institut Camille Jordan, France.
- Jan. 2016 *Actions on sets of Morley rank 2*. Workshop on Model Theory: Groups, Geometry, and Combinatorics, Oberwolfach Mathematics Institute, Germany.
- Nov. 2015 *Actions on sets of Morley rank 2*. Logic Seminar, Rutgers University.
- May 2015 *Actions on sets of Morley rank 2*. Model Theory Seminar, CUNY Graduate Center.
- Apr. 2015 *Recognizing PGL_3 via generic 4-transitivity*. Algebra Seminar, Binghamton University.
- Feb. 2014 *Actions on sets of Morley rank 2*. Séminaire Logique Mathématique, Institut Camille Jordan, France.
- Sep. 2013 *Generically n -transitive permutation groups*. Models and Groups 1, İstanbul Center for Mathematical Sciences, Turkey.
- July 2013 *Generically n -transitive permutation groups*. Workshop on Permutation Groups, Banff International Research Station, Canada.
- Mar. 2013 *Moufang sets of finite Morley rank in odd type*. Séminaire Logique Mathématique, Institut Camille Jordan, France.
- Oct. 2012 *Moufang sets of finite Morley rank with nilpotent Hua subgroup*. Buildings Conference, Universität Münster, Germany.
- Oct. 2010 *Identifying groups of finite Morley rank with a split BN-pair of rank 1*. Approaches to Group Theory Conference, Cornell University.

Organizing

- 2016–Present Co-organizer of the *Algebra, Number Theory, and Combinatorics* seminar at California State University, Sacramento.
- Apr. 2022 Co-organized the *Change Maker Series* event featuring Dr. Pamela E. Harris at California State University, Sacramento.
- Spring 2022 Organized the six-part seminar series *Topics in Permutation Groups* at California State University, Sacramento.

- Apr. 2021 Co-organized the *Change Maker Series* event featuring Dr. Candice Price at California State University, Sacramento.
- Spring 2021 Organized the six-part seminar series *Representation Theory of the Symmetric Group* at California State University, Sacramento.
- Sep. 2020 Co-organized the panel discussion *Radically Reimagined: A Discussion on Racism and Antiracism in Education* as a part of the Fall 2020 Convocation at California State University, Sacramento.
- Oct. 2018 Co-organized a workshop and public talk at California State University, Sacramento on *Inquiry-Based Methods and Equity in STEM Courses* by Dr. Danielle Champney and Dr. Todd Grundmeier.
- Feb. 2017 Co-organized a workshop and public talk at California State University, Sacramento on *Uprooting Racism: Making an Anti-Racist Community* by Paul Kivel.

Professional Development Design & Facilitation

- 2017–Present **Co-facilitator**, Faculty/Professional Learning Community on *Designing for Student Success: Building Inclusive Practices by Interrogating Power and Privilege*, California State University, Sacramento.
Year-long course for faculty/staff (with 18 face-to-face hours) to engage in reading, reflection, discussion, and a project around topics such as power, privilege and identity with a focus on designing for inclusive learning and working environments.
- 2018–2022 **Co-facilitator**, Session on equity and inclusion for New Faculty Orientation, California State University, Sacramento.
SESSION TITLE: *Teaching Diverse Learners: The Syllabus* (2018, 2019), *Designing for Student Success: Equity, Power, and Privilege in the Classroom* (2020–2022)
- 2018, 2019, 2020 **Co-facilitator**, Session on equity and inclusion for the Summer Teaching Institute, California State University, Sacramento.
SESSION TITLE: *Equity Practices in the Classroom* (2018), *Introduction to Equity* (2019, 2020)
- 2018–2019 **Co-leader**, *Institutional Equity Collaborative*, California State University, Sacramento.
Year-long collaboration by 11 faculty members, sponsored by the Division of Inclusive Excellence, to design professional development opportunities for all university faculty and staff.

Refereeing & Reviewing

- 2017–Present **Reviewer**, *Mathematical Reviews (MathSciNet)*, American Mathematical Society.
- 2014–Present **Referee**, various mathematical journals.
- 2018, 2019, 2021 **Reviewer**, *Research and Creative Activity Faculty Awards Program*, California State University, Sacramento.

Courses Taught

- CALIFORNIA STATE UNIVERSITY, SACRAMENTO
- Math 299—Independent Study on Representation & Character Theory: F22
- Math 299—Independent Study in Model Theory: F17
- Math 210A/B—Algebraic Structures: F20/S21
- Math 161—Mathematical Logic: F18
- Math 110A/B—Modern Algebra: S19/F19, F21/S22
- Math 108—Introduction to Formal Math: S17, F17
- Math 102—Number Theory: S18, S20, F21, F22
- Math 100—Applied Linear Algebra: S19, F22
- Math 31—Calculus 2: F16, F20, S21
- Math 30—Calculus 1: S17, F17, S18, F18, S19, S20
- Math 29—PreCalculus: F19

HAMILTON
COLLEGE

Math 437—Senior Seminar in Algebra: F15, F14
Math 325—Modern Algebra: S15
Math 224—Linear Algebra: S16, F15, S12, F11
Math 114—Calculus 2: F15, S12
Math 113—Calculus 1: F14, F11