# Joseph Randich

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| CONTACT INFORMATION | Department of Mathematics<br>University of Oklahoma<br>601 Elm Avenue<br>Norman, Oklahoma 73019-3103 | (815)543-2619<br>jmrandich@ou.edu<br>http://www2.math.ou.edu/~jrandich/ |

EDUCATION

**University of Oklahoma**

Ph.D. Candidate in Mathematics
- Advisor: Dr. Jonathan Kujawa

**College of Charleston**

M.S. in Mathematics, May 2015
- Thesis: *Pants Decompositions of Surfaces*
- Advisor: Dr. Andrew Przeworski

B.A. in Mathematics, May 2013
- Institutional honors: Cum Laude
- Concentration in Pure Mathematics
- Minor in Physics

GRADUATE COURSEWORK

- Real & Complex Analysis
- Measure Theory
- Numerical Analysis
- Mathematical Statistics
- Partial Differential Equations
- Langland's Program
- Combinatorics

- Topology & Algebraic Topology
- Advanced Linear Algebra
- Algebra
- Applied Algebra
- Introduction to Cluster Algebras
- Representation Theory
- Lie Theory

AWARDS

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| 2021 | Ellen and Conrad Masterson Fellowship Fund in Mathematics |
| 2020 | Department of Defense SMART Scholarship |
| 2020 | Harold Huneke Endowed Scholarship |
| 2019 | Department of Mathematics Summer Research Award |
| 2017 | Provost's Certificate of Distinction in Teaching (Fall 2017) |
| 2017 | David C Steed A&S - SHS Scholarship |

TEACHING EXPERIENCE

**University of Oklahoma**

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| Summer | 2020 | Lecturer, Calculus & Analytic Geometry IV |
| Spring | 2020 | Grader, Physical Mathematics & Discrete Mathematics |
| Fall | 2019 | Lecturer, Calculus & Analytic Geometry I |
| Spring | 2019 | Lecturer, Business Calculus I |
| Fall | 2018 | Lecturer, Math for Critical Thinking |
| Summer | 2018 | Lecturer, Business Calculus II |
| Spring | 2018 | Lecturer, Business Calculus II |
| Fall | 2017 | Lecturer, Business Calculus I |
| Summer | 2017 | Lecturer, Business Calculus I |
| Spring | 2017 | Lecturer, College Algebra |
| Fall | 2016 | Lecturer, Business Pre-Calculus |

**College of Charleston**

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| Spring | 2016 | Lecturer, Elementary Statistics |

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| TEACHING EXPERIENCE CONTINUED | **College of Charleston** | | |
| | Fall | 2015 | Lecturer, Elementary Statistics |
| | Spring | 2015 | Lecturer, Contemporary Math and its Applications |
| | Fall | 2014 | Lecturer, Pre-Calculus |
| | Spring | 2014 | Teaching Assistant (to Dr. Elizabeth Jurisich), Introduction to Advanced Mathematics |
| | Fall | 2013 | Teaching Assistant (to Dr. Renling Jin), Pre-Calculus |

RESEARCH INTERESTS     Algebra and Topology – Representation Theory, Low-Dimensional Topology.

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| RESEARCH EXPERIENCE | 2018–Present | Investigating various diagrammatic categories and their connections to other mathematical objects (such as representations of quantum groups, Schur algebras, etc.). |
| | |      Advisor: J. Kujawa, Department of Mathematics,      University of Oklahoma. |
| | 2014–2015 | Investigating properties of pants decompositions of surfaces, specifically, studying flips and zipped flips. |
| | |      Advisor: A. Przeworski, Department of Mathematics,      College of Charleston. |

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| INVITED TALKS | Nov | 2021 | *Polynomial Superfunctors & Generalized Schur Algebras*, AMS Fall 2021 Southeastern Sectional Meeting, University of South Alabama (virtual). |

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| PRESENTATIONS | Nov | 2021 | *Duality: An In-Schur-Ance Policy for the Working Mathematician*, Graduate Algebra Symposium, University of North Texas (virtual). |
| | Oct | 2021 | *Super-ize Me! (and My Schur Algebra)*, Algebra & Representation Theory Seminar, University of Oklahoma. |
| | Feb | 2020 | *Soup or Algebra?*, Graduate Algebra Symposium, University of North Texas. |
| | Oct | 2019 | *Coloring With Representations: How to Fail Art Class*, Student Algebra Seminar, University of Oklahoma. |
| | Sep | 2019 | *Silly Mathematician, Webs are for Spiders!*, Algebra & Representation Theory Seminar, University of Oklahoma. |
| | Oct | 2018 | *All Aboard the Skein Train!*, Graduate Algebra Symposium, University of Texas Arlington. |
| | April | 2018 | *An Algebra So Nice, It Will Make You Quiver!*, Graduate Algebra Symposium, University of North Texas. |
| | Feb | 2015 | *Pants Decompositions of Surfaces*, Ninth Annual Graduate Student Research Poster Session, College of Charleston. |

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| ACADEMIC ACTIVITIES | 2021 | Presented at and attended the (virtual) AMS Fall Southeastern Sectional Meeting, University of South Alabama. |
| | 2021 | Presented at and attended the (virtual) Fall Graduate Algebra Symposium, University of North Texas. |
| | 2021 | Co-organized and attended the (virtual) Spring Graduate Algebra Symposium, University of Oklahoma. |
| | 2020 | Presented at and attended the Spring Graduate Algebra Symposium, University of North Texas. |
| | 2020 | Attended the Introductory Quantum Symmetries Workshop, MSRI. |
| | 2020 | Attended the Connections for Women Quantum Symmetries Workshop, MSRI. |
| | 2019 | Attended the Southeastern Lie Theory Workshop XI, Louisiana State University. |
| | 2018 | Presented at and attended the Fall Graduate Algebra Symposium, University of Texas Arlington. |

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| ACADEMIC ACTIVITIES CONTINUED | 2018 | Participated in the RTG summer school *Lie Theory*, University of Georgia. |
| | 2018 | Participated in the weekly Student Algebra Seminar, University of Oklahoma. |
| | 2018 | Presented at and attended the Spring Graduate Algebra Symposium, University of North Texas. |
| | 2018 | Attended the ninth Texas-Oklahoma Representations and Automorphic Forms (TORA IX) conference, University of Oklahoma. |
| | 2017 | Attended the Fall Graduate Algebra Symposium, University of Oklahoma. |
| | 2016–Present | Regularly attend weekly Algebra and Representation Theory seminar, University of Oklahoma. |
| | 2016 & 2017 | Employed by Hawkes Learning to create and facilitate instructional videos for various mathematics subjects, Charleston, SC. |
| | 2016 & 2017 | Regularly attended weekly Graduate Student Seminar, University of Oklahoma. |
| | 2016 | Attended the Fall Graduate Algebra Symposium, University of North Texas. |
| | 2015 | Attended the Midwestern Conference on Combinatorics and Combinatorical Computing, College of Charleston. |
| | 2013–2015 | Regularly attended weekly Mathematics Colloquim, College of Charleston. |
| | 2013–2015 | Attended seminars in Algebra, Quantum Mechanics, and Solitons, College of Charleston. |
| | 2012 | Participated in the summer *Applications of Mathematics to Physiology and Medicine Workshop*, Duke University. |
| PROFESSIONAL DEVELOPMENT | 2019 | Attended the 2019 SIGMAA on RUME conference, Oklahoma City |
| | 2018 | Participated in the OUr Call Workshop at the University of Oklahoma. Participants collaborated for one week which culminated in active learning resources for the calculus sequence. These resources were made available to all OU faculty and instructors. This workshop was part of APLU's SEMINAL project which is funded by an NSF grant. |
| | 2018 | Completed Faculty LGBTQ Ally Training hosted by the Gender and Equality Center, University of Oklahoma. |
| | 2017 | Completed NIH/NSF Professional Ethics Training in Responsible Conduct of Research, Norman, OK. |
| | 2017 | Completed Advanced Tutor Training for Math for Critical Thinking/Trigonometry, University of Oklahoma. |
| | 2016 | Completed the Teach College Math course, University of Oklahoma. |
| | 2016 | Attended RUME with a VIEW Conference, University of Oklahoma. |
| | 2016 | Completed Advanced Tutor Training for Business Calculus, University of Oklahoma. |
| | 2016 | Attended Teaching Learning and Technology Conference, College of Charleston. |

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| SERVICE AND OUTREACH | 2020 | **Volunteer**, Directed Reading Program; mentored an undergraduate student during the Spring 2020 semester in Lie theory. |
| | 2019–2020 | **Committee Member**, Chair's Grad Advocacy Committee; served on a committee dedicated to improving the mathematics graduate student experience. Worked directly with the chair to address grad student concerns and well-being issues at the University of Oklahoma. |
| | 2019–2020 | **Co-Organizer**, Directed Reading Program; co-organize a program which allows graduate students and young faculty to mentor one or more undergraduate students in an area of mathematics, University of Oklahoma. |
| | 2019 | **Committee Member**, Algebra Search Committee; asked to serve as the graduate student member of the search committee for new faculty in algebra at the University of Oklahoma. |
| | 2019 | **Volunteer**, Directed Reading Program; mentored an undergraduate student during the Fall 2019 semester in the representation theory of finite groups. |
| | 2019 | **Supervisor**, University of Oklahoma Math Center; supervise and mentor undergraduate tutors working with precalculus, calculus I, and calculus II for business during the spring semester. |
| | 2019 | **Volunteer**, 2019 SIGMAA on RUME conference; moderated 18 talks throughout the conference which included introducing speakers, managing time, and managing questions after the talks. |
| | 2019 | **Volunteer**, Review Session Leader; conducted review sessions before exams for all University of Oklahoma students enrolled in Business Calculus I in the Spring semester. |
| | 2018–2021 | **Organizer**, Norman Science Café; organize a monthly outreach event where a speaker from a scientific field gives a talk to the general public with the goal of stimulating and cultivating interest in the sciences in our community. |
| | 2018 | **Volunteer**, Review Session Leader; conducted review sessions before exams for all University of Oklahoma students enrolled in Business Calculus II in the Fall semester. |
| | 2018 | **Volunteer**, University of Oklahoma Department of Mathematics Directed Reading Program; mentored an undergraduate student during the Spring 2018 semester in various topics in topology and another student in algebraic topology during the Fall 2018 semester. |
| | 2018 | **Volunteer**, New Graduate Student Orientation at the University of Oklahoma; participated in the training of incoming graduate students specifically in regards to the OU Math Center. |
| | 2017 | **Volunteer**, New Graduate Student Orientation at the University of Oklahoma; sat on multiple panels and participated in the training of incoming graduate students. |
| | 2016 & 2017 | **Volunteer**, University of Oklahoma Math Day competition for middle school and high school students; performed odd jobs such as grading quizzes and assisting in event running. |
| | 2016 | **Volunteer**, Math Center After Dark Tutor, University of Oklahoma. |
| | 2016–Present | **Undergraduate Mathematics Tutor**, Math Center, University of Oklahoma (Algebra, Pre-Calculus, Math for Critical Thinking, Business Calculus I & II). |
| | 2015 & 2016 | **Volunteer & Contributor**, College of Charleston Math Meet competition for Lowcountry high school students; co-created content for the event including a math-themed scavenger hunt (a new addition to the event in 2015) and performed odd jobs during the event. |

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| <span style="font-variant: small-caps">Service and Outreach Continued</span> | 2015 & 2016 | **Volunteer**, Lowcountry Regional Science and Engineering Fair; acted as a judge for the science fair projects. |
| | 2015 & 2016 | **Volunteer**, College of Charleston Lady Cougars STEM Education Day; assisted with interactive STEM workshops for elementary and middle school students. |
| | 2010–2015 | **Undergraduate Mathematics Tutor**, Math Lab, College of Charleston (Algebra, Pre-Calculus, Calculus I, Calculus II, Business Calculus, Elementary Statistics, Trigonometry). |
| | 2014 | **Volunteer**, College of Charleston Math Meet competition for Lowcountry high school students; performed odd jobs such as proctoring the exams, grading quizzes, etc. |
| <span style="font-variant: small-caps">References</span> | Upon Request | |