**Carmen Wright, Ph.D.**

Associate Professor

Biography **Associate Professor of Mathematics, Jackson State University**

Department of Mathematics and Statistical Sciences

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**EDUCATION**

**Ph.D.** Mathematics, December 2012, The University of Iowa Dissertation: *Some representation theory of Sl\*(2,O/p2) where \* is the  identity and Sl\*(2,M2(O/p2)) where \* equals transpose*

Advisor: Philip Kutzko

**M.S.** Mathematics, May 2009, The University of Iowa **B.A.** Mathematics, *Summa Cum Laude*, May 2006, Oakwood University

**APPOINTMENTS**

May 2019 - Present

August 2012 – May 2019

Associate Professor of Mathematics (Tenured), Department of Mathematics and Statistical Sciences, Jackson State University, Jackson, MS

Assistant Professor of Mathematics, Department of Mathematics and Statistical Sciences, Jackson State University, Jackson, MS

2010 Instructor, Department of Mathematics, The University of Iowa, Iowa City, IA

2008-2010 Graduate Teaching Assistant, Department of Mathematics, The University of Iowa, Iowa City, IA

**AWARDS AND HONORS**

• **Pi Mu Epsilon Honor Society**

• **Project New Experiences in Teaching (NExT) Fellow**, 2013-2014 Mathematical Association of America

**RESEARCH AND SCHOLARLY ACTIVITIES**

**Publications**

• Buell, C., A. Helminck, V. Klima, J. Schaefer, **C. Wright** & E. Ziliak (2023). *Fixed point Group Conjugacy Classes of Unipotent Elements in Low-Dimensional Symmetric  Spaces of Special Linear Groups over a Finite Field*. Journal of Algebra and Its

Applications. 2023 April 19. Available from:

https://doi.org/10.1142/S0219498824501421

• Buell, C., A. Helminck, V. Klima, J. Schaefer, **C. Wright** & E. Ziliak (2020) *Classifying  the orbits of the generalized symmetric spaces for SL2(Fq).* Communications in Algebra,  48:4, 1744-1757, DOI: 10.1080/00927872.2019.1705471

• Buell, C., V. Klima, J. Schaefer, **C. Wright**, E. Ziliak. (2018). *Orbit decompositions of  unipotent elements in the generalized symmetric spaces of SL2(Fq).* Advances in the  Mathematical Sciences: AWM Research Symposium, Los Angeles, CA April 2017 **15**,  Springer (2018), Ed. Alyson Deines, et al., 69-77

• Buell, C., A. G. Helminck, V. Klima, J. Schaefer, **C. Wright**, E. Ziliak. (2017) *On the  Structure of Generalized Symmetric Spaces of SL2(Fq) and GL2(Fq).* Note di Matematica **37**(2) (2017), 1-10

• Buell, C., A. G. Helminck, V. Klima, J. Schaefer, **C. Wright**, E. Ziliak. (2017). *On the  Structure of Generalized Symmetric Spaces of SLn(Fq),* Communications in Algebra,  **45(12)**, 5123-5136

• **Wright, C.**, Kaur, J., Newsome, A. and Bland, C. (2017). *A comparison of methods for  classifying promoter regions in E. coli based on structural properties of DNA*. In: The 2017 International Conference on Bioinformatics & Computational Biology. [online] Las Vegas: CSREA Press, 24-26. Available at:

http://americancse.org/events/csce2017/proceedings [Accessed 26 Jul. 2017] **Grants**

• **2025 – 2026 BPC-DP: Integrated Math and Computer Science (IMaCS) Teacher Professional Development Project,** National Science Foundation, $300,000, [pending:  2417547]. Principal Investigator – Dr. Deidre Wheaton. Co-PIs: Dr. Loretta Moore, Dr.  Jacqueline Jackson, Dr. Jana Talley, Dr. Carmen Wright

• **2019 – 2020 Jackson State University Girls Engaging in the Mathematical Science Program**, Mathematical Association of America Tensor Women and Mathematics Program, $6,000. Principal Investigator – Dr. Jana Talley. Co-PI: Dr. Carmen Wright

• **2018 – 2019 Jackson State University Girls Engaging in the Mathematical Science  Program**, Mathematical Association of America Tensor Women and Mathematics  Program, $6,000. Principal Investigator – Dr. Jana Talley. Co-PI: Dr. Carmen Wright

• **2016 – 2018 Mathematics Advancement in Teaching through Professional  Development Phase II**, Mississippi Department of Education, $976,865, [award: BB25- 4641-003]. Principal Investigator – Dr. Mehri Fadavi. Co-PIs: Dr. Lecretia A. Buckley,  Dr. Jana Talley, Mrs. Alicia K. Jefferson, Dr. Carmen Wright

• **2013 – 2018 Expeditions in Training, Research, and Education for Mathematics and  Statistics through Quantitative Explorations of Data,** National Science Foundation,  $719,992, [award: 1330801]. Principal Investigator – Dr. Tor Kwembe. Co-PIs: Dr.  Carmen Wright, Dr. Xing Yang, Dr. Zhenbu Zhang, Dr. Remata Reddy

• **2012 – 2015 Mathematics Advancement in Teaching through Professional  Development**, Mississippi Department of Education, $1,200,000, [award:

ES366B120025]. Director – Dr. Mehri Fadavi. Co-PIs: Dr. Carmen Wright, Dr. Lecretia  A. Buckley, Dr. David C. Bramlett, Dr. Jana Talley, Mrs. Alicia K. Jefferson

**Presentations**

• Invited Talks

o **Wright, C.**, Kaur, J., Newsome, A. and Bland, C. (2019). *Using Machine Learning to  Find Promoter Regions of DNA*. University of Hawaii, West Oahu, HI

o Buell, C., A. Helminck, V. Klima, J. Schaefer, **C. Wright**, E. Ziliak (2019). *On the  structure of Generalized Symmetric Spaces of SLn(Fq)*. AMS Special Session on The  Mathematics of Historically Black Colleges and Universities (HBCUs) in the Mid Atlantic, National Joint Mathematics, Baltimore, MD

o **Wright, C.** (2018) *Coding in Scratch*. Jackson State University Girls Engaged in the  Mathematical Sciences (GEMS) Program, Jackson State University, Jackson, MS o **Wright, C.**, Kaur, J., Newsome, A. and Bland, C. (2018). *Using Classification  Algorithms to Predict Promoter Regions in E. Coli Based on DNA Structural  Properties.* Department of Mathematics Colloquia, Youngstown State University,  Youngstown, OH

o **Wright, C.** (2017). *Exploring symmetric spaces of SL(n,k) where k is a finite field.* 2017 Modern Math Workshop, Society for the Advancement of Chicanos and Native  Americans in Science, Salt Lake City, UT

o **Wright, C.** (2017) *Coding in Scratch*. Jackson State University Girls Engaged in the  Mathematical Sciences (GEMS) Program, Jackson State University, Jackson, MS o **Wright, C.** (2016). *Note to Self: Lessons Learned from being in EDGE*. Enhancing  Diversity through Graduate Education (EDGE) Reunion 2016, Purdue University,  West Lafayette, IN

o **Wright, C.** (2016). *The generalized and extended symmetric spaces in SL2(Fq) and  GL2(Fq).* Department of Mathematics Colloquia, The University of Southern  Mississippi, Hattiesburg, MS

o **Wright, C.** (2015). *On the structure of the generalized symmetric space for SL3(Fq)  with its inner involution.* Association for Women in Mathematics Symposium,  Baltimore, MD

o **Wright, C.** (2015). *Cryptography*. Jackson Area Capital City Circle, Jackson, MS o **2015** Mathematical Association of America Southeastern Section Meeting, *How to  Survive in Graduate School* Panelist, University of North Carolina Wilmington,  Wilmington, NC

o **2013** New Faculty Orientation Panelist, Jackson State University, Jackson, MS • International Presentations

o **Wright, C.**, Kaur, J., Newsome, A. and Bland, C. (2017). *A comparison of methods  for classifying promoter regions in E. coli based on structural properties of DNA*.  The 2017 International Conference on Bioinformatics & Computational Biology, Las  Vegas, NV

• National Presentations

o Buell, C., A. Helminck, V. Klima, J. Schaefer, **C. Wright**, E. Ziliak (2019).  *Classifying unipotent matrices in the symmetric space of SL2(Fq).* 2019 Spring Central  and Western Joint Sectional Meeting, University of Hawaii at Manoa, Honolulu, HI

o Buell, C., A. Helminck, V. Klima, J. Schaefer, **C. Wright**, E. Ziliak (2019).  *Classifying the H-orbits of the Symmetric Space of SL2(Fq) for* char*(Fq)≠2.* 2019  National Joint Mathematics Meetings, Baltimore, MD

o Talley, J., **Wright, C.** (2019). *The Jackson State University Girls Engaging in the  Mathematical Sciences Program: A Summer Enrichment Experience for Middle  School Girls*, 2019 National Joint Mathematics Meeting, Baltimore, MD

o **Wright, C.**, Kaur, J., Newsome, A. and Bland, C. (2018). *Using Classification  Algorithms to Predict Promoter Regions in E. Coli Based on DNA Structural  Properties.* 2018 National Joint Mathematics Meetings, San Diego, CA

o **Wright, C.** (2017). *Classifying unipotent matrices in the symmetric space of SL2(Fq).* Association for Women in Mathematics Symposium, University of California at Los  Angeles, Los Angeles, CA

o Kwembe, T., R. Reddy, **C. Wright**, X. Yang, Z. Zhang. (2015). *NSF EXTREEMS QED at JSU.* 2015 National Joint Mathematics Meetings, San Antonio, TX o Fadavi, M., Howard, B. D., Kirtman, N. S., Bramlett, D., Buckley, L. A., Jefferson,  A., Talley, J., **Wright, C.** (2014). *Effective teacher professional development  program model for K-8 mathematics*, 2014 Mathematics and Science Partnership  Conference, Washington, D. C.

o **Wright, C.** (2013). *Some representation theory of Sl\*(2,O/p2) where \* is the identity  and Sl\*(2,M2(O/p2)) where \* equals transpose*. 2013 National Joint Mathematics  Meetings, San Diego, CA

• Regional Presentations

o **Wright, C.** (2022). Introduction to Python 3: Part 2. Undergraduate Mathematics  Seminar, Department of Mathematics and Statistical Sciences, Jackson State  University, Jackson, MS

o **Wright, C.** (2023). Introduction to Python 3: Part 1. Undergraduate Mathematics  Seminar, Department of Mathematics and Statistical Sciences, Jackson State  University, Jackson, MS

o **Wright, C.**, C. Gorton, L. Ornas (2017). *Integrating Technology into Undergraduate  Instruction.* Mathematical Association of America Louisiana/Mississippi Section  2017 Meeting, Section NExT Workshop, Millsaps College, Jackson, MS

o **Wright, C.** (2016). *Opportunities for Computing with Big Data*. Mathematical  Association of America Louisiana/Mississippi Section 2016 Meeting, Section NExT  Workshop, Louisiana State University, Shreveport, LA

o **Wright, C.** (2016). *Generalized and extended symmetric spaces of SL2(Fq) and  GL2(Fq).* Mathematical Association of America Louisiana/Mississippi Section 2016  Meeting, Faculty Presentations, Louisiana State University, Shreveport, LA

o **Wright, C.** (2015). *Generalized symmetric spaces on SL2(Fq)*. Department of  Mathematics and Statistical Sciences Colloquia, Jackson State University, Jackson,  MS

**TEACHING AND ADVISING**

• **Courses Taught**

o MATH 670: Introduction to Numerical Methods in Computational Mathematics  (JSU)

o MATH 311: Introduction to Abstract Algebra (JSU)

o MATH 303: Introduction to Set Theory and Logic (JSU)

o MATH 241: Calculus I with Laboratory (JSU)

o MATH 226: Concepts and Structures of Mathematics (JSU)

o MATH 221: Calculus for Business Majors (JSU)

o MATH 112: Plane Trigonometry – Jackson State University (JSU)

• **Research Mentorships**

o **2013 – 2018** Expeditions in Training, Research, and Education for Mathematics and  Statistics through Quantitative Explorations of Data

▪ Johnathan Hill (Mathematics), Shelbi Ware (Biology), Isaac McGee  (Mathematics), Alexander Reed (Biology), Elijah Thompson (Computer  Science), Comelia Walker (Mathematics), Kayshaunna Williams (Computer  Science), De’Una Wilson (Mathematics), Bentrell McGee (Mathematics),  Paris Smith (Mathematics), Michael Thompson (Biology)

o **2015 – 2016** Jala Morrow (Mathematics), *The Intersection of Game Theory and  Emergency Management,* National Oceanic and Atmospheric Administration  Educational Partnership Program with Minority Serving Institutions Program

o **2013 – 2014** Darsha Campbell (Secondary Mathematics Education) and Constance  Howard (Mathematics), *Colliding Trains,* Jackson State University Calculus  Workshop

**SERVICE AND PROFESSIONAL ACTIVITIES**

• **University and Department Service**

o **2023 – Present** Employment Search and Screening Committee (**2015 – 2016**) o **2022 – 2023** Mathematics Day Director

o **2021 – Present** Scheduling Committee

o **2019 – Present** Departmental Tenure & Promotion Committee

o **2019 – Present** College Performance Based Pay Committee (**2016 – 2017)** o **2018 – 2020** Mathematics and Engineering Fair Director

o **2018 – Present** Mathematics Education Committee

o **2017 – Present** College Undergraduate Curriculum Committee (**2015 – 2016)** o **2015 – Present** Pi Mu Epsilon National Mathematics Honor Society Permanent  Faculty Correspondent

o **2012 – Present** Undergraduate Mathematics Seminar Chair

o **2012 – Present** Hospitality Committee

o **2012 – Present** Library Committee

o **2014 – 2016** Student Recruitment and Retention/Public Relations Committee o **2016 – 2017** HEADWAE Committee

o **2013 – 2015** University Undergraduate Curriculum Committee

• **Professional Activities**

o **2021** Co-organizer, Women of Color in Topology and Algebra Session, Joint  Mathematics Meetings

o **2020** Mentor, Summer Scholars Internship Program, National Science Foundation o **2019** Co-organizer, Special Session on Generalizations of Symmetric Spaces, AMS  Spring Central and Western Joint Sectional Meeting, Honolulu, HI

o **2023 – Present** Mathematical Association of America Louisiana-Mississippi Student  Ad hoc Committee

o **2023 – Present** Mathematical Association of America Louisiana-Mississippi  Outstanding Teacher Award Committee

o **2016 – 2019** Mathematical Association of America Louisiana-Mississippi Student  Paper Committee

o **2015 – 2019** Mathematical Association of America Louisiana-Mississippi Section  NExT Committee and Workshop Organizer

o **2013 – 2021** eXtreme Science and Engineering Discovery Environment (XSEDE)  Campus Champion

o **2012 – Present** National Alliance for Doctoral Studies in Mathematical Science, Pre doctoral Mentor

o **2018** National Science Foundation Review Panel

o **2015 – 2017** Expeditions in Training, Research, and Education for Mathematics and  Statistics through Quantitative Explorations of Data (EXTREEMS-QED) High  School Statistics Workshop Organizer

o **2014** Joint Mathematics Meetings Project NExT Panel Organizer, *Independent Study  Courses*, Portland, OR

o **2014** Joint Mathematics Meetings Project NExT Breakout Discussion Facilitator,  Portland, OR

• **Community Service**

o **2018 – Present** E. E. Rogers School Board Member

o **2018 – 2020** E. E. Rogers School 6th-8th Grades Math Club Coordinator o **2016 – 2020** Stewpot – Billy Brumfield Shelter, Jackson, MS

o **2012** ACT Preparation Seminar Instructor, Greater Atlanta Adventist Academy,  Atlanta, GA

**PROFESSIONAL AFFILIATIONS**

• Association for Women in Mathematics (AWM)

• Mathematical Association of America (MAA)

• Project NExT (New Experiences in Teaching), MAA

• National Association of Mathematicians (NAM)

**PROFESSIONAL DEVELOPMENT**

• **2023** Collaborate@ICERM: Fixed-Group Conjugacy Classes of Unipotent Elements in  Symmetric Spaces of Special Linear Groups over a Finite Field of Characteristic 2. Institute for Computational and Experimental Research in Mathematics (ICERM), Brown  University, Providence, RI

• **2023** Mathematical Association of America OPEN Math Workshop: Inclusion and  Inquiry: Fostering Student Belonging and Ownership

• **2022** Mathematical Association of America OPEN Math Workshop: Redesigning your  Course for Mastery Grading

• **2018** National Inquiry-Based Learning and Teaching in Mathematics Conference,  University of Texas at Austin, Austin, TX

• **2017** Institutional Change through Faculty Advancement in Instruction and Mentoring  (IC FAIM) Workshop, Jackson State University, Jackson, MS

• **2017** Collaborate@ICERM: Orbit decompositions of the symmetric spaces of SLn(k),  Institute for Computational and Experimental Research in Mathematics (ICERM), Brown  University, Providence, RI

• **2017** Preparation for Industrial Careers in Mathematical Sciences (PIC Math) Data  Analysis Workshop, Mathematical Association of America, Brigham Young University,  Salt Lake City, UT

• **2016** San Diego Summer Institute, San Diego Supercomputing Center, San Diego State  University (SDSC), San Diego, CA

• **2016** Early Career Faculty Workshop, Underrepresented Students in Topology and  Algebra Research Symposium (USTARS), Sam Houston State University, Huntsville,  TX

• **2015** eXtreme Science and Engineering Discovery Environment (XSEDE) Workshop,  Southern University of New Orleans, New Orleans, LA

Location: JSH 238