

# Cleveland Waddell

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## Education

- Aug 2012–present **Ph.D. Applied Mathematics**, *North Carolina State University*, Raleigh, NC,  
Advisor: Erich Kaltofen.
- Aug 2012–Jan 2015 **M.S. Applied Mathematics**, *North Carolina State University*, Raleigh, NC.
- Jan 2010–Dec 2012 **B.A. Mathematics and Computer Science**, *CUNY Baccalaureate for Unique and Interdisciplinary Studies*, New York, NY.  
Magna Cum Laude
- Jan 2008–Dec 2010 **A.S. Computer Science**, *Medgar Evers College (CUNY)*, Brooklyn, NY.  
Magna Cum Laude

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## Professional Positions

- Jan 2015–present **Research Assistant**, *North Carolina State University*.
- Aug 2012–Dec 2014 **Teaching Assistant**, *North Carolina State University*.

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## Research Interests

*Symbolic Computation, Computer Algebra, Linear Algebra, Coding Theory.*

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## Publications

- [1] Erich L. Kaltofen, Clément Pernet, Arne Storjohann, and Cleveland Waddell. Early termination in parametric linear system solving and rational function vector recovery with error correction. In *Proceedings of the International Symposium on Symbolic and Algebraic Computation*, pages 237–244. ACM, 2017.
- [2] Erich L. Kaltofen and Cleveland Waddell. Deterministic decoding of interleaved reed-solomon codes. Paper in preparation, 2017.

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## Awards

- June 2016 **The Angela E. Grant Poster Award for Best Algorithm**, *Conference for African American Researchers in Mathematical Sciences*.
- July 2018 **The Angela E. Grant Poster Award for Best Algorithm**, *Conference for African American Researchers in Mathematical Sciences*.

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## Teaching Experience

**Instructor**, *Department of Mathematics, NC State University*, Raleigh, NC.

Full responsibilities: Preparing/delivering lectures, assigning homework, writing /grading exams and quizzes, holding office hours, determining students' final grades.

**Courses Taught:**

- MA 403: Introduction to Modern Algebra  
Fall 2018: 9 students

**Course Coordinator**, *Department of Mathematics, NC State University*, Raleigh, NC.

Responsibilities: Prepare Syllabus for Introduction to Modern Algebra (MA 403)

**Recitation Leader/Lecture Assistant**, *Department of Mathematics, NC State University*, Raleigh, NC.

Responsibilities: Holding office hours, grading tests, attending all class lectures, preparing and giving recitation sessions in person.

**Courses:**

- MA 141: Calculus I  
Fall 2014: 88 students
- MA 241: Calculus II  
Spring 2014: 90 students
- MA 131: Calculus for Life and Management Sciences  
Fall 2013: 110 students
- MA 121: Elements of Calculus  
Fall 2012: Lecture Assistant

### Miscellaneous

Fall 2013 **Tutor in the Mathematics Department Tutorial Center**, *North Carolina State University*, Raleigh, NC.

Responsibilities: Assist undergraduate students in all mathematics courses; provide help with assignments, test reviews, and WebAssign (online homework assignments).

Fall 2009 **Tutor in the Learning Center**, *Medgar Evers College (CUNY)*, Brooklyn, NY.

Spring 2012 Responsibilities: Assist undergraduate students in mathematics, computer science and physics courses; provide help with assignments, and test reviews.

Spring 2009 **Tutor in the Mathematics Department**, *Medgar Evers College (CUNY)*, Brooklyn, NY.

Spring 2012 Responsibilities: Assist undergraduate students in all mathematics courses; provide help with assignments, and test reviews.

Fall 2008 **Tutor in the Education Department**, *Medgar Evers College (CUNY)*, Brooklyn, NY.

Spring 2009 Responsibilities: Assist Education majors in all mathematics courses; provide help with assignments, and test reviews.

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## Previous Research Experience

Summer **Research Assistant – NSF-REG**, *North Carolina State University*, Raleigh, NC.

2014 Research Experience for Graduate Students in symbolic computation under Dr. Erich Kaltofen

Summer **Research Assistant – NSF-REG**, *North Carolina State University*, Raleigh, NC.

2013 Research Experience for Graduate Students in symbolic computation under Dr. Hoon Hong

Summer **Mathematics Department Summer Research**, *Medgar Evers College*, Brooklyn, NY.

2011 Derivation of the Subrings of  $M_3(\mathbb{R})$  under Dr. Homeira Pajoohesh

Fall 2010 **Louis Stokes Alliance for Minority Participation**, *Medgar Evers College (CUNY)*, Brooklyn, NY.

Assessment of Ocean Mixing Parameterization for Climate Studies under Dr. Armando Howard

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## Conferences and Presentations

- July 11-14, 2018 **Talk: Parametric Linear System Solving with Error Correction,**  
*Conference for African American Researchers in Mathematical Sciences,*  
Princeton University and the Institute for Advance Studies, Princeton, NJ.
- July 11-14, 2018 **Poster: Parametric Linear System Solving with Error Correction,**  
*Conference for African American Researchers in Mathematical Sciences,*  
Princeton University and the Institute for Advance Studies, Princeton, NJ.
- July 10-13, 2018 **Talk: Parametric Linear System Solving with Error Correction,**  
*SIAM Annual Meeting, Workshop Celebrating Diversity,*  
Oregon Convention Center, Portland, OR.
- July 25-28, 2017 **Talk: Early Termination in Parametric Linear System Solving and Rational  
Function Vector Recovery with Error Correction,**  
*International Symposium on Symbolic and Algebraic Computation,*  
University of Kaiserslautern, Kaiserslautern Germany.
- June 21-24, 2017 **Poster: Early Termination in Parametric Linear System Solving and Rational  
Function Vector Recovery with Error Correction,**  
*Conference for African American Researchers in Mathematical Sciences,*  
University of Michigan, Ann Arbor, Michigan.
- June 15-18, 2016 **Poster: Rational Function Vector Recovery With Error Correction By Paramet-  
ric Linear System Solving And Cabay Termination,**  
*Conference for African American Researchers in Mathematical Sciences,*  
Princeton University and The Institute for Advance Studies, Princeton NJ.
- November 13, 2015 **Talk: Rational Function Vector Recovery By Error Correction And Cabay Ter-  
mination,**  
*Thematic Program on Computer Algebra Seminar,*  
The Fields Institute, Toronto Canada.
- July 6-9, 2015 **Poster: Linear System Solving With Parametric Entries By Error Correction  
and Cabay Termination,**  
*International Symposium on Symbolic and Algebraic Computation,*  
The University of Bath, Bath UK.
- June 3, 2011 **Poster: Assessment of Ocean Mixing Parameterization for Climate Studies,**  
*Conference for African American Researchers in Mathematical Sciences,*  
UCLA/IPAM, Los Angeles, CA.
- May, 2010 **Poster: Assessment of Ocean Mixing Parameterization for Climate Studies,**  
*Louis Stokes Alliance for Minority participation,*  
Brookhaven National Laboratory, Brookhaven, NY.

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## Volunteer Work

July 2018, **Assistant Instructor**, *Queen's College Summer Math Institute (QCSMI)*, Queen's College,  
2017, and Georgetown, Guyana.  
2016

Sept 2017, **Math Doesn't Bug Me Event**, *Bug Fest*, Museum of Natural Sciences, Raleigh, NC.  
2015, and  
2014

Nov-Mar **Assistant Coach**, *Raleigh Senior Boys Basketball League*, Laurell Hills, Raleigh, NC.  
2018, 2017  
and 2016

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## Computer skills

Languages Maple, Python, C++, MatLab.

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## Affiliations

American Mathematical Society (AMS), Society for Industrial and Applied Mathematics (SIAM), The ACM Special Interest Group on Symbolic and Algebraic Manipulation (SIGSAM).