

# Curriculum Vitae

## Ayomikun C. Adeniran

Mathematics Department  
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## Education

### **Texas A&M University (August 2020)**

*Ph.D in Mathematics*

Advisor: Dr. Catherine H. Yan

### **University of Ibadan, Ibadan, Nigeria (May 2014)**

*Master of Science in Mathematics*

Advisor: Dr. Deborah O. Ajayi

### **University of Ibadan, Ibadan, Nigeria (November 2009)**

*Bachelor of Science in Mathematics*

Advisor: Mr. Aminu O. Zubairu

## Research Interests

Algebraic combinatorics, enumerative combinatorics, combinatorial number theory and graph theory.

## Papers

1. *On the Genus of a quotient of a numerical semigroup*  
joint with S. Butler, C. Defant, Y. Gao, P. E. Harris, C. Hettle, Q. Liang, H. Nam, and A. Volk, *Semigroup Forum* (2019). Published online Jan 3, 2019.  
DOI: <https://doi.org/10.1007/s00233-018-9989-3>.
2. *Gončarov Polynomials in Partition Lattices and Exponential Families*  
joint with C. Yan. *Advances in Applied Mathematics* (2020). To Appear.
3. *Enumerating parking completions using Join and Split*  
joint with S. Butler, G. Dorpalen-Barry, P. E. Harris, C. Hettle, Q. Liang, J. L. Martin, and H. Nam. In Press (2020).
4. *On increasing and invariant parking sequences*  
joint with C. Yan. In preparation (2020).

## Conference Presentations

1. *On the Genus of a quotient of a numerical semigroup*  
AMS Special Session on Research from the Rocky Mountain-Great Plains Graduate Research Workshop in Combinatorics,  
Joint Math Meetings, Denver, CO January 2020
2. *The combinatorics of Gončarov polynomials*  
Summer Math Undergraduate Research Program,  
(NSF-REU 2019: Algebra, Combinatorics, and Statistics)  
San Marcos, TX July 2019

3. *Numerical Semigroups*  
50th Southeastern International Conference on Combinatorics, Graph Theory & Computing, (Special Session on the Graduate Research Workshop in Combinatorics),  
Boca Raton, FL March 2019
4. *Some interesting results connected to Tverberg's theorem*  
AMS Gathering In Graduate Expository Mathematics Conference,  
College Station, TX Feb 2019
5. *Problems related to parking functions*  
Graduate Research Workshop in Combinatorics,  
Ames, IA May 2018
6. *Gončarov Polynomials in Exponential Families*  
Graduate Student Combinatorics Conference,  
Dallas, TX April 2018
7. *Gončarov Polynomials in Exponential Families*  
31st Midwest Conference on Combinatorics and Combinatorial Computing,  
Carrolton, GA Oct 2017

## Seminar Talks

1. *Invariant Parking Sequences*  
AMS Graduate Student Organization Seminar (Zoom),  
College Station, TX March 2020
2. *Chicken Nuggets and Numerical Semigroups*  
Combinatorics Seminar, Minneapolis, MN June 2019
3. *The combinatorics of generalized Gončarov polynomials*  
Algebra & Combinatorics Seminar, College Station, TX March 2019
4. *Chicken Nuggets and Numerical Semigroups*  
AMS Graduate Student Organization Seminar, College Station, TX Nov 2018
5. *Gončarov Polynomials in Exponential Families*  
AMS Graduate Student Organization Seminar, College Station, TX Oct 2017
6. *Some motivation for Matroid theory*  
Department Seminar Ibadan, Nigeria May 2015
7. *The Colored Tverberg Theorem*  
Masters Project Defense Ibadan, Nigeria April 2014
8. *A Review of the Localization of Integral Domains and the Associated Functors  $Fr(-)$*   
Undergraduate Project Defense Ibadan, Nigeria November 2009

## Poster Presentations

1. *Gončarov Polynomials in Partition Lattices and Exponential Families*  
SIAM Texas-Louisiana Section, Dallas, TX November 2019

## Conferences & Workshops Attended

1. AMS-MAA Joint Mathematics Meetings 2020  
Colorado Convention Center, Denver, CO January 2020
2. SIAM Texas-Louisiana Section,  
Southern Methodist University, Dallas, TX November 2019
3. *CIMER Improving Research Mentoring Relationships Workshop*  
Texas A&M University October 10, 2019
4. *50th Southeastern Conference on Combinatorics, Graph Theory & Computing*  
Florida Atlantic University, Boca Raton, FL March 4-8, 2019
5. *Graduate Research Workshop in Combinatorics*  
Iowa State University, Ames, IA May 20 - June 2, 2018
6. *Graduate Student Combinatorics Conference*  
University of Texas at Dallas, TX April 6-8, 2018
7. *CombinaTexas*  
Texas A&M University February 10-11, 2018
8. *31st Midwest Conference on Combinatorics and Combinatorial Computing*  
University of West Georgia, Carrollton, GA Oct. 20-22, 2017
9. *Graduate Student Conference in Combinatorics*  
University of Kansas, Lawrence, KS April 7-9, 2017
10. *STEM-Teaching Professional Development Course*  
Texas A&M University Spring semester, 2017
11. *CombinaTexas*  
Texas A&M University May 7-8, 2016
12. *Graduate Student Conference in Combinatorics*  
Clemson University, SC April 1-3, 2016
13. *Southwest Local Algebra Meeting*  
Texas State University, San Marcos TX February 27-28, 2016
14. *Texas Geometry & Topology Conference*  
University of Houston February 27 – March 1 2015
15. *Nigerian Mathematical Society (N.M.S.) Conference*  
Obafemi Awolowo University, Ile-Ife, Nigeria June 2013
16. *Capacity Building Workshop for Mathematical Sciences Lecturers in Tertiary Institutions*  
N.M.C. Abuja, Nigeria June 2011

## Teaching and Mentoring

1. *Instructor of Record - Explorations in Mathematics*  
Texas A&M University Spring 2020
2. *Instructor of Record - Business Calculus I*  
Texas A&M University Summer 2017  
Taught Business Math I to a class of about 25 students. Wrote and gave lectures, quizzes, and exams. Held office hours.

3. *Graduate Mentor, Directed Reading Program for undergraduates*  
Texas A&M University Spring 2019  
Volunteered and was assigned to mentor a freshman over the course of the semester. My responsibilities included designing a directed reading course program, meeting with the mentee weekly, helping to answer any questions and helping with preparation for a final presentation at a departmental mini-seminar.
4. *Engineering Calculus I Teaching Assistant*  
Texas A&M University Fall 2015, Spring 2017, Fall 2017, Spring 2018, Fall 2019  
Duties included leading recitations, writing and grading quizzes, proctoring and grading of exams and running a weekly lab where students worked in a group on MatLab assignments.
5. *Pre-Calculus Teaching Assistant*  
Texas A&M University Spring 2016, Fall 2016  
Duties included leading recitation sessions for students.
6. *Grader, Linear Algebra I, Foundations of Mathematics and Mathematical Probability*  
Texas A&M University Fall 2014, Summer 2016, Spring 2017, Fall 2018, Spring 2019  
Duties included grading weekly student homework.
7. *Help Session Assistant for Linear Algebra, Business Calculus I*  
Texas A&M University Spring 2015, Summer 2015, Summer 2018  
Duties included checking in students, assisting students with course material and overseeing room logistics.
8. *Mentor, A.W.M. Peer Mentoring Program*  
A.W.M. Texas A&M University Chapter Fall 2017 & 2018, Spring 2018 & 2019  
Volunteered as a mentor in this program sponsored by a Texas A&M College of Science Diversity and Equity grant. My responsibilities included meeting with mentees monthly, answering their questions and helping them adjust to graduate school.
9. *Tutorial Assistant*  
University of Ibadan Fall 2012 – Spring 2014  
Duties included leading recitation sessions for students.
10. *Mathematics Teacher*  
Graceville College, Ibadan, Nigeria January – May 2014  
Duties included preparing and teaching Math to middle school and high school students.

## Leadership and Service

### *Sessions Facilitator*

Graduate Student Combinatorics Conference 2018, UT Dallas

### *Sessions Facilitator*

CombinaTexas 2018, Texas A&M University

### *Presenter, Volunteer Opportunities for Outreach*

First Year Graduate Student Seminar, Texas A&M University Fall 2017, Fall 2018, Fall 2019

### *Panelist, How to be an effective TA*

MATH Teaching Class, Texas A&M University Summer 2017

### *Panelist, Adjusting to Graduate School*

First Year Graduate Student Seminar, Texas A&M University Fall 2015

*General Secretary, National Christian Corpers Fellowship, Adamawa State Chapter*  
Adamawa State, Nigeria 2010 – 2011

*President, Mathematics Students Christian Fellowship*  
University of Ibadan, Nigeria Fall 2008 – Spring 2009

*President, Faculty of Science Students Christian Fellowship*  
University of Ibadan, Nigeria Fall 2008 – Spring 2009

## **Outreach Activities**

*Summer Educational Enrichment in Math, Texas A&M University, Instructor, Summer 2019*

Volunteered as an instructor in the SEE-Math program in July 2019. Duties included: preparing a fifty-minute mathematical games activity and presenting it to three different groups of talented middle-school kids.

*Texas A&M University Math and Statistics Fair, Volunteer, Spring 2017, Spring 2018*  
Helped with the Math and Statistics fair in March 2017 and February 2018. Duties included: helping to run a Math art booth, supervising game room, and assisting with logistics.

*Texas A&M University Derivative Bee, Volunteer, Fall 2015, Fall 2016, Fall 2017, Fall 2018*

Helped with the annual derivative bee for high school and undergraduate students. Duties included: checking in students, distributing clickers, cross-checking contestant answers and assisting with other logistics.

*Texas A&M Physics and Engineering Festival, Volunteer, April 2019*

Helped run math booth at festival in March 2019. Duties included: helping to run Math games and assisting with logistics.

*College Station Nigerian Independence day event, Organizer, October 2015*

Helped organize a local event to celebrate Nigeria's independence day on October 1st, 2015.

*Texas A&M University Pi Day of the Century, Volunteer, Spring 2015*

Helped run activities at a Pi Day celebration organized by Prof. Frank Sottile for the community.

*Texas A&M University Math High School Contest, Volunteer, Fall 2015, Fall 2018*

Helped grade contest papers at this annual state-wide contest.

*Mathematics Interactive Session Seminar and Competition, Co-organizer, Jan - March 2012, November 2013*

Organized a number of Math interactive sessions for students at four high schools across three states in Nigeria. Also, helped organize a local Math competition at a high school with support from Nokia Nigeria.

## **Scholastic and Curricular Achievements**

*Outstanding Teaching Assistant Award, Department of Mathematics*

Texas A&M University Spring 2017

Selected based on student evaluations.

*CIRTL Practitioner,*

Texas A&M University May 2017

Presented upon completion of College Classroom Teaching, Integration of Research Teaching and Learning Course organized by the Texas A&M Centre for Teaching Excellence.

*First Class Honors,*

University of Ibadan, Nigeria November 2009

For graduating with a final CGPA of 6.2/7.0.

*Gold Medalist, 1st National Mathematics Competition For University Students*

Abuja, Nigeria November 2008

Presented to the top 3 contestants in the final round of the first national Math competition for undergraduate teams from universities all over Nigeria.

*Dean's Roll of Honor Award, College of Science*

University of Ibadan, Nigeria 2005/06, 2006/07, 2007/08

Presented to students who maintain a CGPA of 6.0/7.0 and above.

## Grants Awarded

*AMS Grad Student Travel Grant award*

Fresno, California May 2020

Awarded travel grant (\$250) to attend the AMS Spring Sectional Meeting at California State University, Fresno, CA. (Conference canceled due to COVID-19.)

*AMS Grad Student Travel Grant award*

Denver, Colorado January 2020

Awarded travel grant (\$500) to attend the 2020 Joint Mathematics Meetings.

## Professional Affiliations

*Member, A.M.S. Graduate Student Chapter*

Texas A&M University, College Station, TX

*Member, S.I.A.M. Graduate Student Chapter*

Texas A&M University, College Station, TX

## Technical Skills

MATLAB, PYTHON, LATEX, MS WORD, MS EXCEL, MS POWERPOINT

## References

Dr. Catherine Yan – Ph.D. advisor and Professor

Department of Mathematics,

Texas A&M University, College Station, TX

*cyan@math.tamu.edu*

Dr. Jeremy L. Martin – Professor

Department of Mathematics,

University of Kansas, Lawrence, KS

*jlmartin@ku.edu*

Dr. Steve Butler – Associate Professor  
Department of Mathematics,  
Iowa State University, Ames, IA  
*butler@iastate.edu*

Dr. Pamela E. Harris – Assistant Professor  
Department of Mathematics,  
Williams College, Williamstown, MA  
*peh2@williams.edu*

Dr. Peter Howard – Professor and Past Associate Head of Graduate programs  
Department of Mathematics,  
Texas A&M University, College Station, TX  
*phoward@math.tamu.edu*