Irina Ilioaea

Curriculum Vitae

━━━━━ Education

2015–2020	**Ph.D. in Mathematics**, *Georgia State University*.

Dissertation: *Prime Characteristic Aspects in the Study of Stanley-Reisner rings and Monomial Ideals, Advisor:* Professor Florian Enescu.

2013 – 2015	**M.S. in Algebra**, *University of Bucharest*.
2010 – 2013	**B.S. in Mathematics**, *University of Bucharest*.

━━━━━ Work Experience

2020–present	**Assistant Professor**, *Department of Mathematics, Louisiana State University in Shreveport*.
2017–2020	**Graduate Teaching Assistant**, *Georgia State University*.

Summer 2020 Precalculus (primary instructor)
Spring 2020 Support for College Algebra (primary instructor)
Fall 2019 Precalculus (recitation instructor)
Summer 2019 Foundations of Numbers and Operations (primary instructor)
Spring 2019 Calculus II (recitation instructor)
Fall 2018 College Algebra (primary instructor)
Summer 2018 Discrete Mathematics (primary instructor)
Spring 2018 Calculus I (recitation instructor)
Fall 2017 Calculus I (recitation instructor)
Spring 2017 Introduction to Mathematical Modeling (primary instructor)

2015 – 2017	**Graduate Research Assistant**, *Georgia State University*.

Project supported by NSF CCF-1320385 in applications of polynomial algebra to digital circuit resulting in publications [3] − [8].

2015 – 2017	**Graduate Lab Assistant**, *Georgia State University*.

Tutor for all collegiate mathematics.

━━━━━ Publications

[1] Irina Ilioaea, *On the Frobenius Complexity of Stanley-Reisner Rings,* Communications in Algebra, 2020

[2] Florian Enescu and Irina Ilioaea, *Strong Test Ideals associated to Cartier Algebras.* Journal of Algebra and its Applications, January 5th, 2019

[3] Utkarsh Gupta, Irina Ilioaea, Vikas Rao, Arpitha Srinath, Priyank Kalla and Florian Enescu, *Rectification of Arithmetic Circuits with Craig Interpolants in Finite Fields.* VLSI-SoC: Design and Engineering of Electronics Systems Based on New Computing Paradigms, IFIP Advances in Information and Communication Technology, 79-106, vol 561, book chapter, Springer, Cham, June 2019

[4] Utkarsh Gupta, Priyank Kalla, Irina Ilioaea and Florian Enescu, *Exploring Algebraic Interpolants for Rectification of Finite Field Arithmetic Circuits with Groebner Bases.* European Test Symposium, March 2019

[5] Vikas Rao, Utkarsh Gupta, Irina Ilioaea, Arpitha Srinath, Priyank Kalla and Florian Enescu, *Post-Verification Debugging and Rectification of Finite Field Arithmetic Circuits using Computer Algebra Techniques.* International Conference on Formal Method in Computer-Aided Design(FMCAD), November 2018

[6] Utkarsh Gupta, Irina Ilioaea, Vikas Rao, Arpitha Srinath, Priyank Kalla and Florian Enescu, *On the Rectifiability of Arithmetic Circuits using Craig Interpolants in Finite Fields.* 26th IFIP/IEEE, International Conference on Very Large Scale Integration, VLSI-SOC, October 2018

[7] Utkarsh Gupta, Irina Ilioaea, Priyank Kalla, Florian Enescu, Vikas Rao and Arpitha Srinath, *Craig Interpolants in Finite Fields using Algebraic Geometry: Theory and Applications.* International Workshop on Logic and Synthesis, June 2018

[8] Xiaojun Sun, Irina Ilioaea, Priyank Kalla and Florian Enescu, *Finding Unsatisfiable Cores of a Set of Polynomials using the Gröbner Basis Algorithm.* The 22nd International Conference on Principles and Practice of Constraint Programming, France, 2016

Invited Talks/Presentations in Conferences

[1] AMS Spring Southeastern Sectional Meeting, Virtual Conference, March 2021

[2] Joint Mathematics Meetings, Virtual Conference, January 2021

[3] Early Commutative Algebra Researchers, Virtual Conference, June 2020

[4] Joint Mathematics Meetings, Denver, CO, January 2020

[5] National School on Algebra, Bucharest, Romania, May 20-24, 2019

[6] AMS Special Section on Commutative Algebra, Fall Eastern Sectional Meeting, University of Delaware, Newark, DE, September 29-30, 2018

[7] AMS Special Section on Commutative Algebra, Spring Southeastern Sectional Meeting, Vanderbilt University, Nashville, TN, April 14-15, 2018

Invited Talks/Presentations

[1] Colloquium, University of Central Florida, Orlando, FL, November 2019

[2] Algebra Seminar, Clemson University, Clemson, SC, April 2019

[3] Graduate Student Colloquium, University of Mississippi, Oxford, MS, January 2018

Poster Presentations

[1] Morgantown Algebra Days, West Virginia University, Morgantown , WV, April 2019

Awards

[1] Mathematics Achievement Award, Department of Mathematics and Statistics, Georgia State University, 2019

[2] Fred Massey Endowed Award, Department of Mathematics and Statistics, Georgia State University, 2018