

MARLY | GOTTI



EDUCATION

- Ph.D. in Mathematics, Advisor: Prof. Peter Sin December 2019
Graduate Student Fellowship (GSF)
University of Florida, FL
- M.Sc. in Mathematics May 2016
University of Florida, FL
- B.A. in Mathematics May 2014
University of Southern California, CA & University of Florida, FL

RESEARCH

1. *Introduction to Factorization Theory* with S.T. Chapman and F. Gotti (book under preparation).
2. *On the local k -elasticities of Puiseux monoids* International Journal of Algebra and Computation, 29(01), pp. 147-158, 2019, [doi:10.1142/S0218196718500662](https://doi.org/10.1142/S0218196718500662).
3. *How do elements really factor in $\mathbb{Z}[\sqrt{-5}]$* with S.T. Chapman and F. Gotti, In: Advances in Commutative Algebra, Springer Trends in Mathematics (Eds. A. Badawi and J. Coykendall), pp. 171-195, 2019, [doi:10.1007/978-981-13-7028-1](https://doi.org/10.1007/978-981-13-7028-1).
4. *Atomicity and boundedness of monotone Puiseux monoids* with F. Gotti, Semigroup Forum, Springer, 96(3), pp. 536-552, 2017, [doi:10.1007/s00233-017-9899-9](https://doi.org/10.1007/s00233-017-9899-9).
5. *The catenary degrees of elements in numerical monoids generated by arithmetic sequences* with S.T. Chapman, A. Miller, C. Miller, and D. Patel, Communications in Algebra, 45(12), pp. 5443-5452, 2017, [doi:10.1080/00927872.2017.1310878](https://doi.org/10.1080/00927872.2017.1310878).
6. *The catenary and tame degrees on a numerical monoid are eventually periodic* with S. T. Chapman, A. Miller, C. Miller, and D. Patel, Journal of the Australian Mathematical Society, 97(3), pp. 289-300, 2014, [doi:10.1017/S1446788714000330](https://doi.org/10.1017/S1446788714000330).
7. *On the molecules of numerical semigroups, Puiseux monoids, and Puiseux algebras* with F. Gotti, Springer INdAM Series: Proceedings of the IMNS (to appear), [arXiv:1702.08270](https://arxiv.org/abs/1702.08270).
8. *Factorization invariants of Puiseux monoids generated by geometric sequences* with S. T. Chapman and F. Gotti, Communications in Algebra (to appear), [doi:10.1080/00927872.2019.1646269](https://doi.org/10.1080/00927872.2019.1646269).
9. *Three families of dense Puiseux monoids* with F. Gotti and H. Polo (under preparation), [arXiv:1701.00058](https://arxiv.org/abs/1701.00058).
10. *The chain group of a forest* with F. Gotti (under preparation), [arXiv:1706.02606](https://arxiv.org/abs/1706.02606).

PRESENTATIONS

Research Retreat: [NSF-AGEP Research Exchange Retreat](#)

Location: Stanford University, Stanford, CA

Presenting: “Applicability Domain in Data Science”

Conference: [R/Pharma - 2019](#)

Location: Harvard University, Cambridge, MA

Presenting: “This one is not like the others: Applicability Domain methods”

Conference: [AMS Joint Central and Western Sectional Meeting:](#)

“Factorization and arithmetic properties of integral domains and monoids” - 2019

Location: University of Hawai’i at Manoa, Honolulu, HI

Presenting: “Factorization and arithmetic properties of integral domains and monoids”

Conference: [Florida Women in Mathematics Day \(FWIMD\)](#)

Location: Florida Atlantic University, Boca Raton, FL

Presenting: “How do elements really factor in $\mathbb{Z}[\sqrt{-5}]$ ”

Conference: [Joint Mathematics Meetings - 2019](#)

Location: Baltimore Convention Center, Baltimore, MD

Presenting: “The elasticity and union of sets of lengths of Puiseux monoids”

Conference: [INdAM meeting: International meeting on numerical semigroups - 2018](#)

Location: Cortona, Italy

Presenting: “On the Molecules of Puiseux Monoids”

Conference: [Infinite Possibilities Conference - 2018](#)

Location: Howard University, Washington, DC

Presenting: “On the Atomicity of Monotone Puiseux Monoids”

Meeting: [Master’s Thesis - 2016](#)

Location: University of Florida, Gainesville, FL

Presenting: Presented my thesis to a mathematics graduate committee as part of the final stages of my master’s degree

Conference: [Joint Mathematics Meetings - 2016](#)

Location: Washington State Convention Center, Seattle, WA

Presenting: “On the Catenary Degree of Numerical Monoids Generated by a Generalized Arithmetic Sequence”

Symposium: [PURE Math Symposium - 2015](#)

Location: University of Hawai’i at Hilo, Hilo, HI

Presenting: “On the Catenary Degrees of Numerical Monoids Generated by Generalized Arithmetic Sequences”

Conference: [Joint Mathematics Meetings - 2014](#)

Location: Baltimore Convention Center, Baltimore, MD

Presenting: “On the Catenary Degrees of Numerical Monoids Generated by Generalized Arithmetic Sequences”

Symposium: [PURE Math Symposium - 2013](#)

Location: University of Hawai’i at Hilo, Hilo, HI

Presenting: “The Catenary Degree of Elements in Numerical Monoids”

TEACHING

Adjunct Assistant Professor - Summer 2016
MAC1105 - College Algebra
Santa Fe College, FL

Teaching Assistant - Spring 2015
MAC2311 - Calculus
University of Florida, FL

Teaching Assistant - Fall 2014
MAC2311 - Calculus
University of Florida, FL

WORK EXPERIENCE

Tidymodels Intern, RStudio, Boston, MA Summer 2019

Project: Develop a modeling package in R ([applicable](#)) to demonstrate different methods to measure how much a new data point is an extrapolation from the original data; Mentor: Max Kuhn ([RStudio Summer Interns](#)).

Application Developer Analyst, University of Florida, College of Medicine, CTSI, FL 2017 - Current

Work as part of a research support unit specializing in the science of information, in particular, supporting research at all stages with services such as data collection/cleaning/analysis using R; software (module) extensions for [REDCap](#) using PHP/Python/JavaScript; software deployment and maintenance for [WebCAMP](#); local software testing using Vagrant/Docker; Linux servers maintenance ([CTSIT homepage](#)).

Adjunct Assistant Professor, Department of Mathematics, Santa Fe College, FL 2016

Set academic goals and prepared the coursework (Tests, Assignments, and Lectures). Assessed the relevance and impact of various lessons; revised and improved lesson formats. Acted as an advisor and counselor to students.

Researcher, Department of Mathematics, University of Hawai'i at Hilo, HI 2013, 2015

Used SageMath to make predictions on the given datasets. Guided and instructed a team of undergraduate students throughout the research process resulting in two scientific papers; the findings of these two papers were presented at the Joint Mathematics Meetings of January 2014 and 2016.

Teaching Assistant, Calculus, Department of Mathematics, University of Florida, FL 2014-2015

Designed and implemented lesson plans. Tutored and assisted students with assignments and concepts.

Software Engineer Intern, Ultimate Software, FL 2014

Developed comprehensive suites for automation test plans and added test cases to existing testing framework (Echo, a Selenium-based testing framework). Ensured traceability and automation in managing application releases between Non-Production and Production environments. Identified and removed application risks; maintained C# programs and databases. Cultivated the set of principles native to Agile development and tracked customer cases using the Salesforce enterprise.

TECHNICAL SKILLS

R, RStudio, Docker, Vagrant, Python, Fabric, REDCap, WebCAMP, PHP, MySQL, JavaScript, Java, C#.