

THIAGO LOPES DE HOLLEBEN

hollebenthiago@dal.ca · github: [@hollebenthiago](#)

EDUCATION

Universidade Federal do Rio de Janeiro, Brazil

march 2016 - july 2017 (interrupted)

Major in Mathematics

Universidade Federal do Rio de Janeiro, Brazil

july 2017 - 2020

Bachelor in Applied Mathematics

Universidade Federal do Rio de Janeiro, Brazil

august 2019 - december 2021

Master's degree in Mathematics

Dissertation title: [The log-concavity of chromatic polynomials](#).

Advisor: Seyed Hamid Hassanzadeh

Dalhousie University, Canada

september 2022 - current

PhD in Mathematics

Advisor: Sara Faridi

SKILLS

Programming: Macaulay2, Sage, Python, Javascript, Julia

COMPUTATIONAL ALGEBRA PERSONAL PROJECTS

Some simulations on statistical properties of Betti tables over a given class of ideals

Macaulay2 and Python script to study some statistical properties of Betti tables over a given class of ideals.

Technologies used: Macaulay2, Python3, github repository: [Quantitative-Betti-Tables](#)

Algorithms related to Elliptic Curves, prime factorization and cryptography.

Webpage that includes some statistical properties of rational points of elliptic curves over finite fields related to Serre's bound, a simple cryptography scheme and Lenstra's algorithm on factorization.

Technologies used: Javascript, link: [Webpage](#)

ACADEMIC ACHIEVEMENTS

Honours undergraduate research project

Received an award for an undergraduate research project on the algebraic and combinatorial properties of Edge Ideals. During SIAC 2018.

Advisor: Seyed Hamid Hassanzadeh

LEADERSHIP POSITIONS

Teaching assistant at Dalhousie

Fall of 2022 and Winter of 2023

Teaching assistant at UFRJ

First semester of 2019

Teaching assistant at UFRJ

First and second semester of 2018

Organizer of Week of Applied Mathematics and Mathematical Engineering (SEM²Ap)

Organized virtual Week of Applied Mathematics and Mathematical Engineering (SEM²Ap) in 2020

More info on: [Webpage](#), [Youtube](#), [Instagram](#)

Organizer of weekly student seminar at UFRJ

Organized weekly seminars at UFRJ during the second semester of 2019.

EVENTS ATTENDED

Workshop on Lefschetz Properties in Algebra, Geometry, Topology and Combinatorics. (Fields) 2023 (talk, problem)

Workshop on Commutative Algebra and Algebraic Geometry in Prime Characteristics. (ICTP) 2023 (poster)

School on Commutative Algebra and Algebraic Geometry in Prime Characteristics. (ICTP) 2023 (talk)

Interactions Between Topological Combinatorics and Combinatorial Commutative Algebra. (BIRS) 2023 (talk)

Combinatorial Algebra meets Algebraic Combinatorics 2023. (Waterloo University) 2023 (poster)

Combinatorial Algebra meets Algebraic Combinatorics 2020. (Dalhousie University) 2020

1st Joint Meeting Brazil-France in Mathematics. (IMPA) 2019.

32o Colóquio Brasileiro de Matemática. (IMPA) 2019.

SIMCARA. (USP São Carlos) 2019.

Syzygies, from Theory to Applications. (UFPB) 2019.

XXV Escola de Álgebra. (UNICAMP) 2018.