Carlo Francisco "Paco" E. Adajar

University of Georgia
Department of Mathematics
Athens, GA 30602

Email: paco@uga.edu

Research Interests

Number theory, especially analytic and elementary. Currently studying questions about the distribution of additive and multiplicative arithmetic functions.

Education

University of Georgia — January 2021–present
Ph.D. Candidate
Adviser: Paul Pollack

University of the Philippines Diliman — June 2013–December 2020
M.S. Mathematics — July 2016
Adviser: Richell O. Celeste
   Thesis: *On odd near-perfect and deficient-perfect numbers with k distinct prime divisors*

Ateneo de Manila University
B.S. Applied Mathematics, Major in Mathematical Finance — March 2013

Work Experience

University of Georgia
Graduate Teaching Assistant — January 2021–present

Ross Mathematics Foundation
Counselor, Ross Mathematics Program — 2023, 2024

University of the Philippines Diliman
Lecturer, Institute of Mathematics — August 2020–December 2020
Instructor, Institute of Mathematics — August 2016–July 2020

PAREF Southridge School
Consultant, Mathematics Department — November 2013–March 2015

Mathematics Trainers' Guild of the Philippines
Trainer, Mathematical Olympiad Summer Training Program — April 2012–May 2012

Ateneo de Manila High School
Student Trainer, Department of Mathematics — August 2011–January 2012

Ateneo de Manila Grade School
Student Trainer, Department of Mathematics — August 2010–January 2011

Teaching Experience

University of Georgia — 2021–present

Math 1113: Precalculus	Fall 2021
Math 1113: Precalculus ($\times 2$)	Spring 2022
Math 2250: Calculus I	Fall 2022
Math 2250: Calculus I	Spring 2023
Math 2250: Calculus I	Fall 2023
Math 1113: Precalculus ($\times 2$)	Spring 2024
Math 2250: Calculus I	Fall 2024

University of the Philippines Diliman — 2016–2020

Math 17: Algebra and Trigonometry ($\times 3$) (discussion class)	1st Semester 2016-2017
Math 53: Elementary Analysis I ($\times 2$) (discussion class)	1st Semester 2016-2017
Math 100: Introduction to Calculus (discussion class)	2nd Semester 2016-2017
Math 53: Elementary Analysis I ($\times 2$) (discussion class)	2nd Semester 2016-2017
Math 54: Elementary Analysis II	Midyear 2017
Math 17: Algebra and Trigonometry (discussion class)	1st Semester 2017-2018
Math 54: Elementary Analysis II ($\times 2$) (discussion class)	1st Semester 2017-2018
Math 53: Elementary Analysis I ($\times 3$) (discussion class)	2nd Semester 2017-2018

Math 21: Elementary Analysis I ($\times 2$) (discussion class)	1st Semester 2018-2019
Math 54: Elementary Analysis II ($\times 2$) (discussion class)	1st Semester 2018-2019
Math 22: Elementary Analysis II ($\times 4$) (discussion class)	2nd Semester 2018-2019
Math 55: Elementary Analysis III (taught for 1/3 of the semester)	2nd Semester 2018-2019
Math 100: Introduction to Calculus	Midyear 2019
Math 22: Elementary Analysis II	Midyear 2019
Math 23: Elementary Analysis III (discussion class)	1st Semester 2019-2020
Math 30: Intermediate Analysis and Applications	1st Semester 2019-2020
Math 54: Elementary Analysis II	1st Semester 2019-2020
Math 21: Elementary Analysis I	1st Semester 2020-2021
Math 23: Elementary Analysis III	1st Semester 2020-2021

Books

Institute of Mathematics, University of the Philippines Diliman. *Mathematics 21: Elementary Analysis I Course Module.* (2018) (editor)

E. P. Bautista and I. J. L. Garces. "Mathematical Excursions: A Problem-Solving Primer for Trainers and Olympiad Enthusiasts." C&E Publishing. (2010) (proofreader)

Selected Talks and Presentations

Unit Fraction Representations Over $\mathbf{Q}$ and $\mathbf{F}_q(t)$
UGA Mathematics Club, UGA — September 2024

Ehrhart theory
Graduate Student Seminar, UGA — September 2023

Denser Egyptian fractions
Graduate Student Seminar, UGA — September 2022

On statistical properties of prime-divisor counting functions
Mock AMS, UGA — August 2022

The worst way to find the area of a circle
Graduate Student Seminar, UGA — March 2022

Perfectly imperfect: on odd near-perfect, deficient-perfect, and spoof-perfect numbers
Graduate Student Seminar, UGA — February 2021

On odd near-perfect and deficient-perfect numbers
ZetaValue2019, Wako, Saitama, Japan — March 2019

Perfect, near-perfect, and deficient-perfect numbers
2016 MSP-NCR First Lecture Series — September 2016

On odd near-perfect and deficient-perfect numbers with k distinct prime divisors *(with Richell O. Celeste)*
Poster presented at: 2016 Asian Mathematical Conference — July 2016

On odd near-perfect and deficient-perfect numbers with k distinct prime divisors
2016 MSP Annual Convention — May 2016

Conferences and Research Schools Attended

PANTS XXXVII
University of Georgia, Athens, GA
December 9–10, 2023

PANTS XXXVI
Clemson University, Clemson, SC
October 21–22, 2023

INTEGERS 2023
University of Georgia, Athens, GA
May 17–20, 2023

CTNT 2022
University of Connecticut, Storrs, CT
June 6–12, 2022

100 Years of Mock Theta Functions: New Directions in Partitions, Modular Forms, and Mock Modular Forms
  Vanderbilt University, Nashville, TN
  May 22–23, 2022

CIMPA School on Group Actions in Arithmetic and Geometry
  Universitas Gadjah Mada, Yogyakarta, Indonesia
  February 17–28, 2020

Value Distribution of Zeta and L-Functions and Related Topics
  Riken, Wako, Saitama, Japan
  March 22–26, 2019

VIASM Summer School in Number Theory
  Vietnam Institute for Advanced Study in Mathematics, Hanoi, Vietnam
  June 18–24, 2018

SEAMS School 2017 Manila: Topics on Elliptic Curves
  University of the Philippines Diliman, Quezon City, Philippines
  July 16–25, 2017

2016 Asian Mathematical Conference
  Bali, Indonesia
  July 25–29, 2016

2016 MSP Annual Convention
  Cebu, Philippines
  May 30–31, 2016

Mentoring

Thesis (co-)adviser (at University of the Philippines Diliman)
  Allan James Acong *(with Jerome T. Dimabayao)* (B.S. Mathematics, 2019)
  Mark Joshua Bricenio *(with Jerome T. Dimabayao)* (B.S. Mathematics, 2019)

Undergraduate mentoring (through the UGA Department of Mathematics Directed Reading Program)
  Nicholas Follo (Fall 2021)
  Cooper Clickner (Spring 2022)
  Maximilian Bennett (Summer and Fall 2022)
  Abbie Ottosen (Spring and Fall 2023)
  Oliver Sima (Fall 2023)
  Alyssa Lovern (Spring 2024)
  Nayeong Kweon (Spring 2024)
  Stella Sweeney (Fall 2024)
  Marley Walter (Fall 2024)

Service and Extension

Co-organizer and question writer for the UGA High School Math Tournament since 2021.

Co-organizer of the Mathematics Directed Reading Program (DRP) at UGA since Summer 2022.

Volunteer at the Math Circle at the Athens-Clarke Public Library since Spring 2025.

Peer mentor for first-year graduate students at UGA from 2022–2024.

Secretary of the AMS Graduate Student Chapter at UGA from 2021–2022.

Co-organized the SEAMS School Manila: Topics on Elliptic Curves held at the University of the Philippines Diliman in 2017.

Test Development Committee member for the Philippine Mathematical Olympiad since 2016.