# Ivan Retamoso, Ph.D.

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Curriculum Vitae

A dedicated and passionate Mathematics professor, wholeheartedly advocating for the integration of open educational resources (OER) to ensure that mathematics education becomes universally accessible.

#### **EDUCATION**

2007-2014 **Ph.D. Mathematics** <u>The Graduate Center of New York</u>. Thesis Title: "ON POLYNOMIAL ROOTS APPROXIMATION VIA DOMINANT EIGENSPACES AND ISOLATION OF REAL ROOTS". Thesis Advisor: <u>Victor Pan</u>. Awarded on February 01, 2015.

#### 2004-2006 **M.A. Mathematics**

<u>The City College of New York</u>. Awarded on June 01, 2006.

1994-1999 **B.S. Industrial Engineering** *Pontifical Catholic University of Peru. Awarded on January 15, 2000.* 

#### WORK EXPERIENCE

Fall 2018 - present.
Assistant Professor
Borough of Manhattan Community College, Full-time.
Courses taught: Calculus I, Precalculus, Elementary Algebra, Elementary Algebra and Basic Arithmetic.

2003-2018 Adjunct and Substitute Assistant Professor. Worked teaching Mathematics and Statistics courses at: The City College of New York Baruch College Brooklyn College Kingsborough Community College Guttman Community College Iona College Queensborough Community College Berkeley College

#### HONORS / AWARDS

Barnett and Jean Hollander Rich Graduate Mathematics Scholarship for the Academic Year 2005-2006 (Mathematics Department of The City College of New York).

CUNY RESEARCH SUMMIT: CREATIVITY IN STEM Certificate of Presentation.

April 20, 2019 Selected as a Faculty Fellow for the <u>Opening Gateways Faculty Seminar</u> for Fall 2019 to Spring 2020.

May 8, 2019 Participated as a Judge on 2019 BMCC Annual Research Symposium (BARS) BARS Certificate of Appreciation.

July 10, 2019 Selected to participate as <u>AMATYC (AMERICAN MATHEMATICAL ASSOCIATION OF</u> <u>TWO YEAR COLLEGES) PROJECT ACCCESS FELLOW</u> for the years 2018-2020.

NCSM 2020 Virtual Conference, March 30

NCSM 2020 Virtual conference, March 31

Introduction to Data Science Certificate of Completion

Learning to Teach Online Certificate of Completion

Flipping the Classroom Certificate of Completion

Creator Fest conference, Spring 2020 by OpenStax, Rice University

"Give Your Online Course that In-Class Feel" Certificate of Completion

"Tips and Strategies for the virtual shift of face-to-face Math classes" AMATYC Spring 2020

CUNY Online Teaching Essentials Certificate of Completion, June 30 Summer 2020

RESILIENT TEACHING Certificate of Completion, July 2020

ACUE Micro-Credential in Promoting Active Learning Online, November 2020

Improving Student Collaboration, Engagement, Motivation, and Learning

THRIVE Technical Assistance Program Certificate of Achievement

Professional Development and Department Issues in a Pandemic

BMCC SafeZone Training Certificate, April 2021

MOTIVATING LEARNERS COURSE: STARTING STRONG Certificate of Completion, January 2021

March 16, 2021

Professor Retamoso was nominated for the <u>BMCC Distinguished Teaching Award for the year</u> 2021.

Supplemental Instruction Certificate, June 8th, 2021

AMATYC Project ACCCESS as Fellow in Cohort 16 (2019-2021) October 30, 2021

Presenter Certificate AMATYC 2021, Phoenix Arizona

Certificate of Completion Data Science Workshop, January 18th to January 21st, 2022

Certificate of attendance webinar Foster a Culture of Belonging Campus-wide, December 1st 2022

Presenter Certificate AMATYC 2022, Toronto Canada

Presenter Certificate Virtual Days AMATYC 2022

Coaching for Success (AMATYC) Certificate of completion January 23-February 17, 2023

May 2023

Professor Retamoso participated as a judge for four students' presentations at the BMCC Annual Research Symposium (BARS).

Summer 2023

#### **Creating Data Science Pathways Certificate of Appreciation 2023**

### **PUBLICATIONS and/or Creative Works**

*Heuristic Method for Minimizing Distance without using Calculus and Its Significance* published at peer-reviewed <u>MATHEMATICS TEACHING RESEARCH</u> JOURNAL Vol 14, No 4 FALL 2022

*"Perfecting" Leonardo da Vinci diagram* published at peer-reviewed <u>MATHEMATICS</u> TEACHING RESEARCH JOURNAL Vol 12, No 4 WINTER 2021

<u>Solution to Problem H-3 in "The Problem Section" of MathAMATYC Educator Volume</u> <u>15, Number 1 Fall 2023</u>

<u>Solution to Problem I-1 in "The Problem Section" of MathAMATYC Educator Volume 15,</u> <u>Number 2 Winter 2024</u>

Solution to Problem I-2 in "The Problem Section" of MathAMATYC Educator Volume 15, Number 2 Winter 2024

<u>Solution to Problem K-1 in "The Problem Section" of MathAMATYC Educator Volume</u> <u>16, Number 1 Fall 2024</u>

Solution to Problem K-4 in "The Problem Section" of MathAMATYC Educator Volume 16, Number 1 Fall 2024

Google Scholar of Ivan Retamoso

Professor Retamoso has been the editor of the following sections of *The Problem Corner* at peer-reviewed MATHEMATICS TEACHING REASEARCH JOURNAL.

The Problem Corner Vol 13, No 2 Summer 2021

The Problem Corner Vol 13 No 3 Fall 2021

The Problem Corner Vol 14 No 1 Spring 2022

The problem Corner Vol 14 No 2 Summer 2022

The Problem Corner Vol 14 No 3 Golden Fall 2022

The Problem Corner Vol 14 No 4 Fall 2022

The Problem Corner Vol 14 No 5 Winter 2022

The Problem Corner Vol 15 No 1 Early Spring 2023

The Problem Corner Vol 15 No 2 Spring 2023

The Problem Corner Vol 15 No 3 Summer 2023

The Problem Corner Vol 15 No 4 Summer 2023

The Problem Corner Vol 15 No 5 Summer 2023

The Problem Corner Vol 15 No 6 Winter 2024

The Problem Corner Vol 16 No 1 Early Spring 2024

The Problem Corner Vol 16 No 2 Spring 2024

The Problem Corner Vol 16 No 3 Summer 2024

The Problem Corner Vol 16 No 4 Golden Fall 2024

June 24th, 2023

Professor Retamoso wrote the Editorial for <u>MATHEMATICS TEACHING RESEARCH</u> JOURNAL (MTRJ) Volume 15 N 2 Spring 2023

Editorial of the 2023 Spring issue 46, Vol 15 no 2

# TALKS/PRESENTATIONS

Professor Retamoso gave a talk for the Mathematics Colloquium at BMCC on spring 2019.

Title of Professor Retamoso's talk: <u>COMPLEX AND REAL POLYNOMIAL ROOT</u> <u>APPROXIMATION VIA DOMINANT EIGENSPACES</u>

Professor Retamoso presented: <u>*"Teaching Mathematics using OER, ZTC, and Technology, now we can!"* at the <u>CUE Conference/OER Showcase in Spring 2020.</u></u>

April 7th, 2021

Professor Retamoso presented: "Perfecting" Leonardo da Vinci diagram

At The 6th Annual Mathematics Day @ Hostos Community College

Agenda 6th Math Day Spring 2021

October 15th, 2021

Professor Retamoso presented at <u>The Third Annual C2 Summit For Pedagogical</u> <u>Advancements In STEM</u> Conference.

Presentation title: Embedding YouTube videos in WeBWorK Homework Problems.

Video of the presentation

#### STEM Summit program 2021

October 30th, 2021

Professor Retamoso gave a **Poster Presentation in AMATYC 2021 Conference**, Phoenix Arizona.

March 30th, 2022

Professor Retamoso was a panelist at <u>7th Annual Mathematics Day @ Hostos Community</u> <u>College</u>

The Role of Mathematics Education in a Person's Life.

November 18th, 2022

Professor Retamoso presented:

<u>Using OER to Teach Calculus Fairly and Efficiently</u> at the <u>48th AMATYC Annual</u> <u>Conference at Toronto Canada, Presenter Certificate AMATYC 2022</u>.

December 3rd, 2022

Professor Retamoso gave a <u>Presentation in Virtual Days of the 48th AMATYC Annual</u> <u>Conference.</u>

**Using OER to Teach Calculus Fairly and Efficiently** 

August 23rd, 2023

After Professor Retamoso mentored his Calculus Student Irfan Rahman during the summer, on the NSF-funded project entitled <u>"Exploring the Intricate Beauty and Mathematical</u> <u>Properties of the Mandelbrot Set using Python: A Visual Journey."</u> their final collaborative effort was showcased through a poster presentation at <u>The First BMCC Data Science</u> <u>Symposium where Professor Retamoso gave support to his student</u> and was given a <u>Certificate of Appreciation</u>.

September 29, 2023 Professor Retamoso gave the following presentation based on the last paper he published. <u>Heuristic Method for Minimizing Distance without Using Calculus and Its</u> <u>Significance at C2 SUMMIT FOR PEDAGOGICAL ADVANCEMENTS IN STEM 2023</u>.

February 24, 2024 Professor Retamoso gave the presentation <u>Enhancing scholarship by solving math problems</u> <u>in journals</u> on the Seminar of Mathematics Teaching Research Journal (MTRJ).

Video of the presentation.

June 28, 2024 Professor Retamoso gave a presentation for the AI Across the Curriculum Faculty Fellowship 2024

#### **PDF version of the Presentation**

November 14, 2024 Professor Retamoso presented: **The Joy of Mathematics: Minimizing Distance Without Using Calculus** at <u>50th AMATYC Annual Conference, in Atlanta, Georgia</u>

**PDF version of the Presentation Badge of Recognition** 

#### **RESEARCH AND PROJECTS**

Professor Retamoso has created websites for all courses that he teaches.

https://openlab.bmcc.cuny.edu/members/iretamoso/

Since Fall 2019, Professor Retamoso has been using for all courses that he teaches:

Zero cost OER Textbook from openstax.org

Zero cost <u>WEBWORK</u> Homework system.

Zero cost Homework system from: http://helpyourmath.com/immersion/homework

It is Professor Retamoso's intention to help students learn Mathematics regardless of their financial status.

Professor Retamoso created and maintains the website <u>The Math Group</u> which is a space for Faculty members and Students to share ideas and talk about Mathematics. As a way to support new Lecturers, Professor Retamoso has uploaded on <u>The Math Group</u> his video lectures for <u>Precalculus</u> and <u>Calculus 1</u>.

Professor Retamoso is an ACCCESS Fellow member of the sixteenth cohort of <u>AMATYC</u> <u>Project ACCCESS</u>.

Professor Retamoso is a Faculty Fellow for the Opening Gateways Faculty Seminar.

#### **VOLUNTEER EXPERIENCE**

2018 - present

Professor Retamoso has attended all meetings and training sessions associated to BMCC Safe Zone, became a Safe Zone Ally, and he remains updated, that way he can do his best to support

the LGBTQ+ community, he was given the following certificate: <u>BMCC SafeZone Training</u> <u>Certificate</u>, <u>April 2021</u>.

Spring 2021 - present

In a volunteer basis Professor Retamoso is the editor of *The Problem Corner* section and webmaster of *MATHEMATICS TEACHING RESEARCH JOURNAL*.

Professor Retamoso attended ANET Meeting to discuss about the themed session for AMATYC 50th Anniversary.

Fall 2023, in a volunteer basis Professor Retamoso attended and received a certificate <u>Ethics</u> <u>Training Course Certificate of Completion 2023</u>.

Fall 2023, in a volunteer basis Professor Retamoso attended Faculty/Staff Training and Support Advisory Meeting: LMS transition, ever since he has been supporting Faculty and Adjuncts to do the transition smoothly.

Fall 2023, in a volunteer basis Professor Retamoso attended and helped the data science team with **Open House Data Science**.

Winter 2024

Professor Retamoso attended and helped on the COACHE Subcommittee on Scholarship and Creative Work.

Spring 2024

Professor Retamoso attended SafeZone PD Spring 24, to stay updated on how he can support the LGBTQ+ community.

Spring 2024

Prof. Retamoso attended in person Math Faculty Professional Development Workshop Growth Mindset

Presented by Dr. Elisabeth Jaffe.

#### Spring 2024

Professor Retamoso attended in person **Game and Non-game-based Strategies to Increase Student Participation** Presented by Dr. Kathleen Offenholley.

February 15, 2024

Professor Retamoso attended the INC Focus Group at BMCC in person, where he actively participated. His valuable insights and responses were carefully documented by the authors of the study.

Spring 2024

Professor Retamoso attended webinar "A new day: Overcoming math trauma" given by **Geillan Aly**, Founder and CEO of Compassionate Math.

# LANGUAGES

Spanish (native)

English (advance oral and written fluency)

# **MEMBERSHIPS / AFFILIATIONS**

Since 2015 Professor Retamoso has been member of **MATHEMATICAL ASSOCIATION OF** <u>AMERICA (MAA)</u>. As a member of MAA professor Retamoso has been involved with activities organized by Metro NEXT MAA. Professor Retamoso has submitted so far three solutions to Mathematics Magazine of MAA and two solutions to The American Mathematical Monthly of MAA all Professor Retamoso's solutions have been recognized as correct solutions. On June 30 of 2010 professor Retamoso started his membership at AMATVC via the Preject

On June 30 of 2019 professor Retamoso started his membership at <u>AMATYC</u> via the <u>Project</u> <u>ACCCESS program</u> (he was selected to participate as an ACCCESS fellow in Cohort 16 and completed the project in October 2021) he has kept his membership ever since, attending conferences and webinars organized by **AMATYC**. Additionally, so far five solutions that Professor Retamoso submitted have been published on **The Problem Section** of <u>MathAMATYC Educator</u>.

problem H-3 in The Problem Section of MathAMATYC Educator Volume 15, Number 1, Fall 2023, was published as the first solution.

problem I-1 in The Problem Section of MathAMATYC Educator Volume 15, Number 2 Winter 2024, was published as the first solution.

problem I-2 in The Problem Section of MathAMATYC Educator Volume 15, Number 2 Winter 2024, was published as the second solution.

problem K-1 in The Problem Section of MathAMATYC Educator Volume 16, Number 1 Fall 2024, was published as the first solution.

problem K-4 in The Problem Section of MathAMATYC Educator Volume 16, Number 1 Fall 2024, was published as the first solution.

#### **Additional information**

#### All Problems Solved by Professor Retamoso so far

Professor Retamoso's solution to **problem 2061 in MAA Mathematics Magazine** was recognized as a correct solution.

Professor Retamoso's solution to **problem 2102 in MAA Mathematics Magazine**. was recognized as a correct solution.

Professor Retamoso's solution to **problem 2126 in MAA Mathematics Magazine** was recognized as a correct solution.

Professor Retamoso's solution to **problem 12269 in MAA The American Mathematical Monthly** was recognized as a correct solution.

Professor Retamoso's solution to **problem H-3 in The Problem Section of MathAMATYC** Educator Volume 15, Number 1 Fall 2023, was published as the first solution. Professor Retamoso's solution to <u>problem H-4 in The Problem Section of MathAMATYC</u> Educator Fall 2023 was recognized as a correct solution.

Professor Retamoso's solution to **problem I-1 in The Problem Section of MathAMATYC** Educator Volume 15, Number 2 Winter 2024, was published as the first solution.

Professor Retamoso's solution to <u>problem I-2 in The Problem Section of MathAMATYC</u> Educator Volume 15, Number 2 Winter 2024, was published as the second solution.

Professor Retamoso's solution to problem I-3 in The Problem Section of MathAMATYC Educator Winter 2024 was recognized as a correct solution.

Professor Retamoso's solution to <u>problem J-3 in The Problem Section of MathAMATYC</u> Educator Summer 2024 was recognized as a correct solution.

Professor Retamoso's solution to <u>problem K-1 in The Problem Section of MathAMATYC</u> Educator Volume 16, Number 1 Fall 2024, was published as the first solution.

Professor Retamoso's solution to **problem K-4 in The Problem Section of MathAMATYC** Educator Volume 16, Number 1 Fall 2024, was published as the first solution.

Professor Retamoso's solution to <u>problem K-3 in The Problem Section of MathAMATYC</u> <u>Educator Fall 2024 was recognized as a correct solution.</u>