Women in Math & Computing Day 2025

YORK College | CUNY THE CITY UNIVERSITY OF NEW YORK

Friday ~ November 21, 2025
10:00 - 2:00 pm
AC-2D01

The 13th Annual Women in Math & Computing Day is made possible by generous grants from the York College Auxiliary Enterprises, the Simons Foundation, the National Science Foundation's S-STEM & CISE Program and OAA.

Women in Math & Computing Day 2025

Schedule of Events

Friday, November 21, 2025

10:00 - 10:30 AM
Registration & Check-in

10:30 - 10:45 AM
Introduction & Welcome

10 : 45 - 11 : 45 AM
Keynote
Bridging Frontend and Backend Agility: A Unified Approach to Microfrontend and Microservice Architecture

Jyoti Shah, Director of Application Development, ADP

11 : 50 AM - 12 : 50 PM
Keynote
Julia Robinson: Life, Logic, Diophantine equations, and her Mathematical Legacy

Dr. Shenglan Yuan, Professor of Mathematics at LaGuardia Community College

1:00 - 2:00 PM
LUNCH

*All events will take place at York College in the Faculty Dining Room, AC/2D01

Women in Math & Computing Day 2025

Bridging Frontend and Backend Agility: A Unified Approach to Microfrontend & Microservice Architecture

FRIDAY
NOV 21, 2025
10:45 - 11:45 AM
AC-2D01

ABSTRACT:

Modern enterprises are moving toward distributed, cloud-native systems that demand agility and scalability across the entire stack. While microservices have modularized backend development, frontends often remain monolithic, slowing delivery and innovation.

Microfrontends extend microservice principles to the user interface, enabling independent development, deployment, and scaling of UI modules. This session explores the integration of microfrontend and microservice architectures as a unified model that enhances flexibility, fault isolation, and continuous delivery.

By bridging frontend and backend modularization, organizations can accelerate time-to-market, reduce dependencies, and achieve end-to-end agility in complex, multi-team environments.

BIOGRAPHY:

Jyoti Shah is a seasoned technology leader with over two decades of experience in application development, digital transformation, and AI innovation.

As Director of Application Development at ADP, she combines deep technical acumen with strategic vision to drive scalable enterprise solutions.

With 15 years as a full stack developer, Jyoti has mastered modern technologies including GenAI, React, Angular, Java, and JavaScript.

In recent years, she has led AI-powered initiatives that optimize client engagement and sales intelligence.

Women in Math & Computing Day 2025

Julia Robinson: Life, Logic, Diophantine equations, and her Mathematical Legacy

FRIDAY
NOV 21, 2025
11:50AM -12:50PM
AC-2D01

ABSTRACT:

This talk explores the remarkable life and mathematical contributions of Julia Robinson (1919–1985), whose work fundamentally shaped modern logic and number theory. We will focus on her impact on Diophantine equations. We'll introduce Diophantine equations with the seemingly simple problem of representing 42 as a sum of three integer cubes, which remained unsolved for nearly 70 years. A solution was finally found on the 100th anniversary of Robinson's birth. We will then survey historically important Diophantine equations before examining Robinson's lifelong obsession with Hilbert's Tenth Problem. Simply stated, Hilbert asked if there is an algorithm that can determine the solvability of any given Diophantine equation. Starting as a young woman, Robinson made a wish on every birthday that she might one day solve this conjecture. At age 50, a young Russian mathematician, Yuri Matiyasevich, completed the proof, building on her ideas, and starting a decades long friendship and working partnership between the two. Through the journey to this solution, we'll explore Robinson's biography, perseverance, her collaborative approach to mathematics, and her influence on new generations of mathematicians.

BIOGRAPHY:

Dr. Shenglan Yuan is a professor of Mathematics at LaGuardia Community College. She received her PhD from the Graduate Center of the City University of New York. Her current research focus on population dynamics. She also continues to pursue her interests in recreational mathematics, undergraduate mathematics education, and undergraduate mathematical research. To foster interest in math, she co-founded the Math Society at LaGuardia and started the Math is Everywhere program there. She received the President's Award for Excellence in Teaching and Outstanding Service from LaGuardia Community College, CUNY in the academic year 2012 to 2013. Currently, she serves as a faculty mentor for undergraduate research projects through QSTEM, CRSP and QED.

Funding for Women in Math & Computing Day 2025

The Queens Experiences in Discrete Mathematics (QED) REU site, hosted at York College at the City University of New York in Jamaica, Queens, provides a student-centered and collaborative environment for nine undergraduates to conduct research in discrete mathematics over the course of the academic year. Recruitment efforts for this REU site target public and private universities in Queens and the greater New York City area, and emphasize outreach to underrepresented groups, including women, students of color, and students with disabilities. The program aims to increase retention and graduation rates and to diversify the population of graduate school applicants and researchers in the mathematical sciences.

S-STEM Program

Funded by a five-year NSF grant awarded in 2021, this program supports high achieving, low-income students in Chemistry, Computer Science, Mathematics, and Physics. To date, 40 students have received $331,519 in scholarships. Mentorship is central to the program, guiding scholars toward STEM careers or graduate study. A partnership with the Tech Incubator at Queens College further enhances opportunities through internships with local companies.

CISE Research Program

This initiative promotes academic partnerships and collaborative research, notably with Stevens Institute of Technology. It focuses on cutting edge fields such as Cybersecurity, Artificial Intelligence (AI), and the Internet of Things (IoT), offering students hands on experience that bridges theory and practice. The program also fosters faculty collaboration, strengthening education and research in high demand tech areas.

The goal of the Travel Support for Mathematicians program is to substantially increase collaborative contacts between accomplished, active mathematicians in the United States and to stimulate collaboration in the mathematics field primarily through the funding of travel and related expenditures.

York College's hallmark academic programs in liberal arts and sciences are centers of excellence within CUNY, attracting and graduating some of the best and most highly-motivated students from New York City and the greater New York area.

York College enriches lives and enables students to grow as passionate, engaged learners with the confidence to realize their intellectual and human potential as individuals and global citizens.

OAA

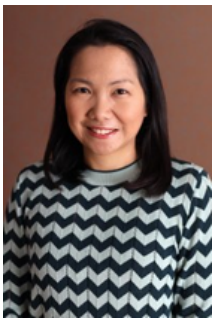
Planning Committee

Dr. Lidia Gonzalez
Professor & Chair of Planning Committee for Women in Math Computing Day 2025

Dr. Lidia Gonzalez holds a Bachelor of Science and Master of Arts in Mathematics Education from New York University after which she worked for seven years as a mathematics teacher at Washington Irving HS, a comprehensive public school in NYC. She earned a Ph.D. in Urban Education from the CUNY Graduate Center in 2008. Dr. Gonzalez's research interests focus broadly on the teaching and learning of mathematics with the aim of improving the educational experiences of urban youth. More specifically she is interested in teaching of mathematics for social justice, mathematics identity and professional development/teacher training.

Dr. Rishi Nath
Professor

Dr. Nath first became interested in mathematics at the University of Chicago where he attended various courses on group theory and Lie algebras given by Professors Jon Alperin and George Glauberman. After completing a Masters degree at Brandeis University, he returned to Chicago where he completed his PhD in the representation theory of the symmetric and alternating groups under the direction of Professor Paul Fong at the University of Illinois. Dr. Nath has a longstanding interest in math education. He taught math at Bronzeville Alternative High School in the South Side of Chicago and with the Franklin Summer Program (Phillips Brooks House, Harvard University). Originally from the Boston area, he currently lives in Queens.



Dr. Thitima Srivatanakul
Associate Professor

Dr. Srivatanakul is an Associate Professor in the Department of Mathematics & Computer Science at York College. She obtained her Ph.D. in Computer Science in 2005. Dr. Srivatanakul's research focuses primarily on Cyber Security and Cyber Security Education, Computer Science Education, Game-based Learning, Web Development, Ethical hacking, and Software Engineering. She is the Principal Investigator (PI) for both the NSF S-STEM Scholarship Program and the NSA/NSF-funded GenCyber Program at York College. Furthermore, since 2000, Dr. Srivatanakul has been serving as a co-director of the New York State Education Department's York College STEP Program.

Dr. Virginia Thompson
Associate Professor

Dr. Virginia L. Thompson obtained a Bachelor of Science degree in Mathematics from York College in 1998, which laid an excellent foundation for her as she continued her studies at Teachers College (TC), Columbia University. There, she acquired her Master of Arts degree in Mathematics Education in 2000, and went on to complete a doctoral degree at TC in Mathematics Education in 2009. Dr. Thompson's research interests are on open education resources (OER), open pedagogy, teaching and learning online and computer algebra systems.

Dr. Radoslaw Wojciechowski
Professor & Chair

Dr. Wojciechowski's mathematical journey began at Indiana University from which he graduated in 2001. Following this, he came to New York City and obtained a doctorate from the Graduate Center of the City University of New York in 2008. He was then a postdoc at the Group of Mathematical Physics of the University of Lisbon in Portugal before coming to York College in the fall of 2010. His main research interests include properties of the heat equation on infinite graphs and spectral graph theory. Since coming to York, he has enjoyed teaching a wide variety of classes and interacting with students at all levels.