Converge 2024:
Building Futures in STEM, Health Sciences and Professional Programs

York College, CUNY
April 5, 2024
9:30am – 3:30pm

Event Program

Converge 2024 is made possible by generous grants from York College's Auxiliary Enterprises and Faculty Strategic Initiatives Fund, CUNY's Career Success Fellows program, New York State Education Department's STEP program, the Simons Foundation and National Science Foundation's S-STEM and QED REU Programs.

Converge 2024

Schedule of Events

Welcome Remarks and Coffee
AC-2D01
9:30am – 10:00am

Student Poster Session
Hallway by 2M04/2M05
10:00am – 11:00am

Keynote Sessions
11:15am – 12:15pm

Dr. Rosa Orellana
Professor of Mathematics
Dartmouth College
2M04

Leslie Whitfield, MSW, MPH
Assistant Professor of Social Work
Living and Learning International
2M05

Lunch and Career Panels
12:30pm – 2:00pm
AC-2D01

Breakout Sessions
2:00pm – 3:30pm
Various Locations

Titles and Abstracts of Talks & Speaker Biographies

Title: *Chromatic Polynomials*

Abstract: A graph consists of vertices and edges specifying a relation between any two vertices. A simple graph allows only one edge between two vertices. Coloring the vertices has applications to scheduling problems. The chromatic polynomial of a graph is a one variable polynomial which encodes the number of ways to color a graph with a given number of colors. In the mid-1990s Stanley introduced a multivariable polynomial that generalizes the classic one variable chromatic polynomial. What properties of a graph can be recovered from this polynomial? Is it possible to reconstruct a graph from Stanley's polynomial? In this talk, I will discuss some recent obtained in collaboration with undergraduate students.

Speaker: Dr. Rosa Orellana

Bio: Rosa Orellana received her Ph.D. from UCSD in 1999 under the guidance of Hans Wenzl. After graduation she won a University of California President's Posdoctoral Fellowship at UC San Diego. In 2000, she joined the department of mathematics at Dartmouth College. She is currently Full Professor at Dartmouth where she is lucky enough to teach some of the best students in the country.

Rosa's area of research is algebraic combinatorics. Algebraic combinatorics is an area of mathematics that studies objects that have combinatorial and algebraic properties. An example of such object is the ring of symmetric functions. In algebraic combinatorics, algebraic methods are used to answer combinatorial questions, and conversely, apply combinatorial techniques to problems in algebra.

Title: *The Social Work "Key": Unlocking Multifaceted Opportunities*

Abstract: This presentation sets out to highlight connections between the realm of social work and the diverse array of opportunities across disciplines. Drawing from personal experiences and professional insights gained in both social work and public health, the presenter explores intersections of these fields, emphasizing their joint dedication to well-being, addressing social determinants of health, and advancing equity among marginalized groups. Attendees will gain insight into the presenter's unique and personal journey to and within social work, spanning various healthcare settings, clinical practice, macro-level advocacy, and school-based support, both domestically and internationally. The presentation will also highlight the transferable skills acquired through social work and their applicability across different fields, empowering students to confidently navigate a range of career paths and foster interdisciplinary collaboration. Ultimately, the presentation aims to ignite inspiration among social work students, encouraging them to leverage their education and passion for social justice to catalyze positive change within their communities and beyond.

Speaker: Leslie Whitfield, MSW, MPH

Bio: Leslie Whitfield is an experienced professional who combines social work and public health practices. With over a decade of experience in both community-based service organizations and clinical settings, Leslie gained valuable insights into the connection between social determinants and healthcare during her recent role in an acute inpatient hospital. There, she learned to skillfully integrate knowledge of needs assessments, social determinants, and community resources to ensure fair case management and behavioral health care.

Leslie also contributes to an urban "study away" program in Baltimore, MD, as a consultant and field instructor for practicums at Baltimore Urban Studies. She completed her Masters of Public Health (MPH) at George Washington University in Fall 2023 and is eager to bring fresh perspectives to public health challenges. As a keynote speaker for the Converge conference, Leslie aims to highlight the diverse career paths that can emerge from a strong social work foundation. Leslie lives in the Washington, DC area with her family and is committed to achieving a harmonious work-life balance

Poster Presentations

Social Work:

Isabelle Fleurisca – *Post-Religious Deconversion Grief: A Literature Review*
Mentor: Jennifer Hartmann

Rudy Innocent & Weldon Lam (MSW Alumni) – *The Use of Artificial Intelligence for Substance Use Disorder: Social Work and STEM Workforce Considerations and Implications*
Mentor: David Hornung

Andrea Munroe – *Alcoholism in Native American Communities*
Mentor: Jennifer Hartmann

William Murphy & Victoria Franklin – *Imposter Syndrome in Clinical MSW Practicum Placement*
Mentor: Jennette Allen-McCombs

Emily Sewlall – *Examining the Relationship Between Burnout among Psychiatric Support Staff and Patient Engagement*
Mentor: Jennette Allen-McCombs

Occupational Therapy:

Clover Hutchinson & Elise Henry – *Simulation in Academia: Standardized Patients, Mannequins, Avatars, Oh My!*

Health and Human Performance:

Andy Velasco-Arriola – *Association between Social Media Use, Muscle Dysmorphic Disorder and Psychological Health in Urban College Students*
Mentor: Galila Werber-Zion

Nursing:

Shadia Mazahar, Ashley Dass, Harpreet Bali, Jennifer Cabrera, Ariana Singh, & Alyssa Khan – *Chronic Obstructive Pulmonary Disorder (COPD) + COVID-19*
Mentors: Magalie Alcindor & Margaret Hickey

STEP:

Avishai Ramnauth (Queens Gateway to Health Sciences) – *Investigating the Impacts of War on Carbon Dioxide Levels and the Environment*
Mentor: Andrew Singh

Meherunnesa Momo (The Young Women's Leadership School of Queens) – *Comparing the Agriculture and Commercial Sectors in New York with regard to Greenhouse Gas Emissions and Climate Change Impact*
Mentor: Andrew Singh

S-STEM:

Haider Ali & Ngawang Samdrup – *NBA Game Result Prediction*
Mentor: Abu Kamruzzaman

Rajheem Kiem – *A Python-Driven Analysis and Visualization of Nike Shoe Sales Data*
Mentor: Thitima Srivatanakul

Darryl Nurse – *The Effect of Large Language Models on The Integrity of Information*
Mentor: Abu Kamruzzaman

Luis Santana – *Sudoku C++ Coding Project*
Mentor: Thitima Srivatanakul

Jonathan Shields – *Optimizing Time Complexity: A Comparative Analysis of Techniques in Recursive Algorithms - A Case Study with the Path Sum Algorithm in Graphs and Binary Trees*
Mentor: Thitima Srivatanakul

Shashank Sigdel – *Chat Messaging System*
Mentor: Thitima Srivatanakul

QED REU:

Joshua Bourne (City College), Nicole Xing (Yale University) – *Combinatorial Geometry: Exploring Halfplane Intersection Patterns*
Mentor: Pablo Soberón (Baruch College/Graduate Center)

Christopher Brice (Borough of Manhattan CC), Nhat-Dinh Nguyen (Hunter College), Allen Rakhamimov (Cooper Union) – *Zero Forcing on ILT Graphs*
Mentor: Abigail Raz (Cooper Union)

Terrance Coggins, Ammara Gondal (Borough of Manhattan CC) – *Symmetric Chain Decompositions*
Mentor: Robert Donley (Queensborough CC)

Nicole Froitzheim (Baruch College), David Martinez (Baruch College) – *The Threshold Dimension of Graphs*
Mentor: Nadia Benakli (City Tech)

Sean Ku (NYU) – *Characterizations of Essential Self-Adjointness of Laplacian and Schrödinger Operators on Birth-Death Chains*
Mentor: Radosław Wojciechowski

Ling Lin (LaGuardia CC) – *NYC Tour Planning*
Mentor: Shenglan Yuan (LaGuardia CC)

Adityo Mamun (Queens College), Jonathan Nalikka (Columbia University) – *A Noetherianity Result for Polynomial Rings over Cographs*
Mentor: Eric Ramos (Stevens Institute of Technology)

Tea Mamun (Queens College), Jackie Yee (Hunter College) – *Identifying Bounds Within Game Variations of Cops and Robbers*
Mentor: Kerry Ojakian (Bronx CC)

Alumni and Industry Panels

Alumni:

Alexis Jinks, MSW Alumni Panel
Karline Balan, BSW Alumni Panel
Tyshaun Moore, ISM Alumni Panel, Associate Software Engineer at JPMC

Industry:

Ana R. Diaz, OTR/L, WCC
Regional Rehabilitation Director of Operations and Reimbursement
Sigma Rehab

Vishnu Laljie
Director of Talent Acquisition
Kimberly Ryan
HR Generalist and Lead Recruiter
Jamaica Hospital
Flushing Hospital

Christopher Hanusa
Professor of Mathematics/Artist
Master's in Mathematics Program
Queens College

Funding for Converge 2024

This event was made possible by funding from:

York Auxiliary Services Grant
Dr. Rishi Nath, Recipient

York Foundation Faculty Strategic Initiatives Fund
Dr. Radosław Wojciechowski, Recipient

CUNY Career Success Fellows
Dr. Azzie Forbes, Recipient
Dr. Rishi Nath, Recipient

New York State Education Department (NYSED) STEP Program
Dr. Fenio Annansigh-Jamieson, Director
Dr. Efstathia Korkou, Co-Associate Director
Dr. Thitima Srivatanakul, Co-Associate Director

Simons Foundation Travel Support for Mathematicians
Dr. Radoslaw Wojciechowski, Principal Investigator (PI)

National Science Foundation QED REU Program
Dr. Rishi Nath, Principal Investigator (PI)
Dr. Edoardo Carta-Gerardino, Co-PI

National Science Foundation S-STEM Program
Dr. Thitima Srivatanakul, Principal Investigator (PI)
Dr. Radosław Wojciechowski, Co-PI
Dr. Fenio Annansingh-Jamieson, Co-PI
Dr. Leslie Keiler, Co-PI
Provost Derrick Brazill, Co-PI

Planning Committee

The Converge 2024 planning committee consists of the following people:

Dr. Fenio Annansingh–Jamieson
Dean Maureen Becker
Dr. Azzie Forbes
Dr. Rishi Nath
Dr. Thitima Srivatanakul
Dean George White
Dr. Radosław Wojciechowski

Thanks

Jennette Allen-Mccombs, Tiffany Atkinson, Cem Bingol, Ajisa Dervisevic, Maribel Donado, Jennifer Hartmann, David Hornung, Isabelle Hubert, Cathleen Lilavois, Claudio Lindow, Erzulie Mars, Keith Marshall, Marlon Medwinter, Cleon Mendonca, Evelyn Munoz, Rafael Nunez, Jose Luis Oliveira, Latchman Ramnauth, Selena Rodgers, Shirell Roeback, Doria Thompson, Nicole Utley.