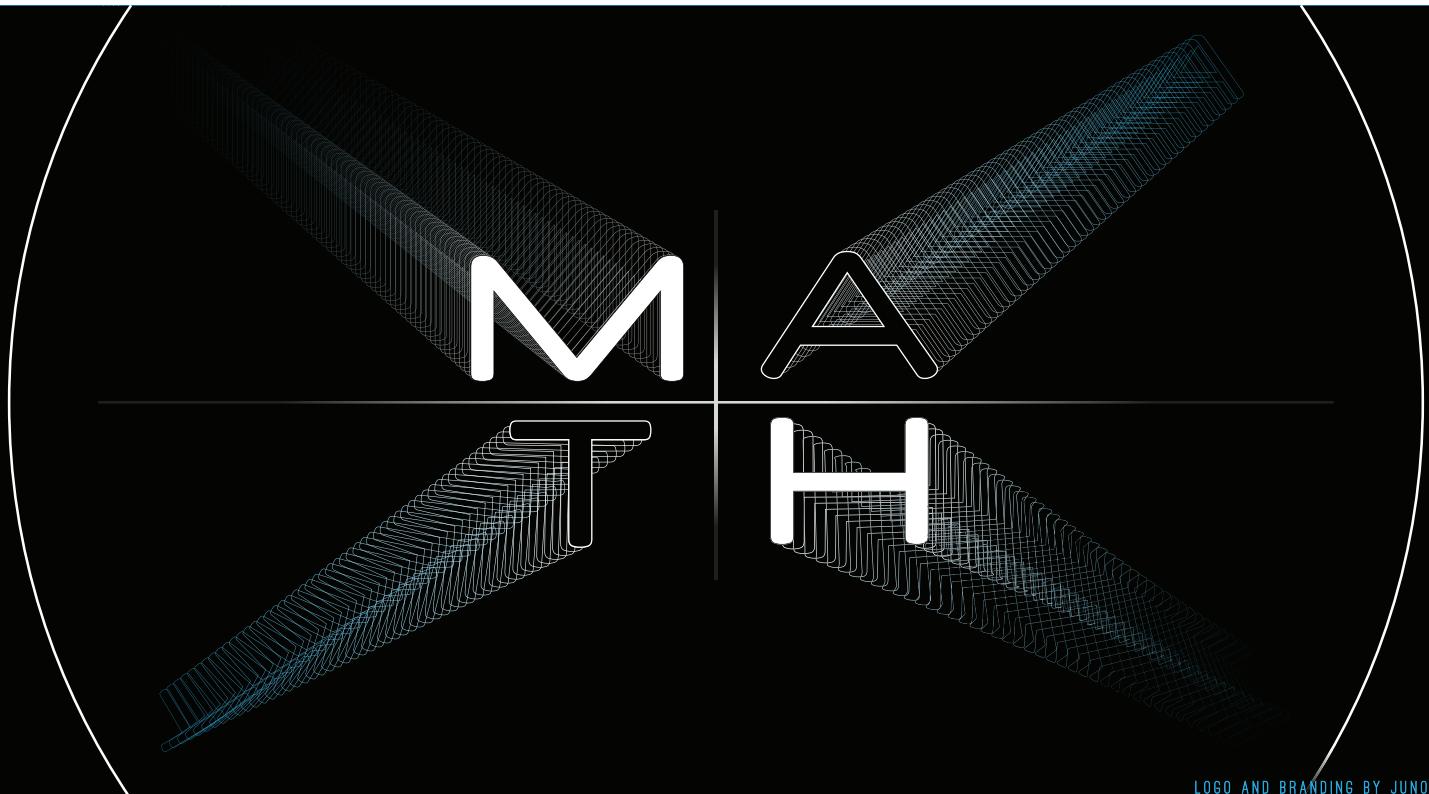


2019 OFFICIAL TECHNICAL PROGRAM

4TH ANNUAL  
**MATHEMATICS DAY**  
@ HOSTOS COMMUNITY COLLEGE



LOGO AND BRANDING BY JUNO MORROW

"THE MATHEMATICS IN DIVERSE DISCIPLINES"

EXPLORING HOW MATHEMATICS IS RELATED TO THE DISCIPLINE OF YOUR INTEREST

HOSTOS CAFE - C BUILDING TUESDAY, APRIL 2ND, 2019 11AM-6:45PM





# 4<sup>th</sup> Annual Mathematics Day @ Hostos

Hostos Café – C Building – Tuesday, April 2, 2019

## The Mathematics in Diverse Disciplines

Exploring how Mathematics is  
Related to the Discipline of Your Interest

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# ORGANIZING COMMITTEE/ COLLABORATORS

## ORGANIZING COMMITTEE

<b>Clara Nieto-Wire</b>	Event coordinator, Chair of Mathematics Day Organizing Committee
<b>Nieves Angulo</b>	Chair of Mathematics Department
<b>Cynthia Jones</b>	Chair of the General Education Committee
<b>Luz Rivera</b>	Session for Faculty, Staff and Administrators Only coordination
<b>Moise Koffi</b>	Sponsors co-coordinator
<b>Diandra Jugmohan</b>	Sponsors co-coordinator
<b>Gisselle Guzmán</b>	Event registration and in-site Peer Leaders coordination
<b>Thomas Beachdel</b>	Liaison with the HCC Humanities Department
<b>Armando Amador</b>	Exhibits support
<b>Ramón Gómez</b>	Exhibits support
<b>Lauren Wolf</b>	Exhibits support
<b>Tanvir Prince</b>	Intermissions support - Mathematics Day @ Hostos / Slide Show
<b>Anders (AJ) Stachelek</b>	In-site tech support
<b>Dionicio Taveras</b>	Mathematics adjunct faculty integration
<b>Lissette Maspons</b>	General support
<b>Ever-Lyn Oxley</b>	General support

## COLLABORATORS

Office of the President  
Office of Academic Affairs  
General Education Committee  
Center for Teaching and Learning  
Humanities Department  
Natural Sciences Department  
Allied Health Department  
Student Government Association - SGA  
Student Development and Enrollment Management - SDEM  
Office of Student Activities - OSA  
Hostos Academic Learning Center - HALC  
Title V  
Supplemental Instruction Program - SI  
Peer Leaders  
Duplicating  
Hostos Collegiate Science and Technology Entry Program – CSTEP  
CUNY Research Scholars Program – CRSP  
Hostos Engineering Academic Talent (HEAT) Scholarship Program

## **SPONSORS**

- Office of the President
- Office of Academic Affairs
- Office of Student Activities
- Hostos Collegiate Science and Technology Entry Program – CSTEP
- Black Male Initiative - BMI
- Student Government Association - SGA
- Title V
- Accelerated Study in Associate Programs – ASAP
- Mathematics Club
- Engineering Club
- Mathematics Department Faculty and Staff

## **LOGO AND BRANDING**

**Juno Morrow**

Media Design Coordinator at HCC

## **PROGRAM - EDITORIAL BOARD**

**Clara Nieto-Wire**

Event coordinator, Chair of Mathematics Day Organizing Committee

**Flavio Cabrera**

Program Editor - Penn State University - Berks

**The Mathematics Department Would Like to Express Its Gratitude to All Who Made This Event Possible**



## Program Description:

The Hostos Community College Collegiate Science and Technology Entry Program (CSTEP) is designed to increase the number of historically underrepresented and economically disadvantaged students pursuing careers

leading to professional licensure or professions in mathematics, science, technology, engineering and health-related fields.

CSTEP provides students with academic enrichment, internship, and research experiences in science, mathematics, engineering, and technology content areas.

The Program consist of summer and academic year components including:

- Research and Internship experiences
- Conferences and poster presentations
- Tutoring in gateway STEM courses
- Academic and career development workshops, and advisement

## Staff:

Dr. Moise Koffi – Director – Ext: 7461

Mrs. Diandra Jugmohan – Co-Director – Ext: 6773

Ms. Briseida Cortez – Coordinator – Ext: 6774

Mr. Reginald Dorcely – Research Advisor – 6774

## Upcoming Events

Robotics Workshops: Fridays –10:30am

21<sup>st</sup> Annual STEP Conference – March 29– 30, 2019

27<sup>th</sup> Annual CSTEP Conference – April 12 – 14, 2019

Mini Poster Presentation – April 9, 2019

End of Semester Social – May 14, 2019

Tutoring: STEM subjects

Monday, Wednesday 10am-3pm (HALC)

Friday, 10am-1pm (HALC)

# The Collegiate Science and Technology Entry Program

## Exploring Careers in STEM

Science, Technology, Engineering, & Mathematics

## Tutoring

## Internships

## Research

## Mentoring

## Networking

## Technology

**CSTEP Provides Academic Enrichment and Research experience in STEM disciplines**

### Contact Information:

**Location:** 475 Grand Concourse -A126

**Phone:** 718- 518-6774

**Website:** [www.hostosproyectoaccess.org](http://www.hostosproyectoaccess.org)

# MATHEMATICS DAY

## CHAIR'S CORNER

Dear Participants:

On behalf of the Mathematics Day Organizing Committee, the Mathematics Department, all Collaborators, and Sponsors, I am pleased to welcome you to the 4th Annual Mathematics Day @ Hostos.

This year's theme "The Mathematics in Diverse Disciplines – Exploring How Mathematics is Related to the Discipline of Your Interest" is an invitation to identify the particular type of mathematics that is mostly used in one's field of interest. It is our hope that the audience will broaden their understanding of how mathematics is used in different disciplines to recognize phenomena or situations that are not explicit to the eye, to assess conditions, to clarify situations, to identify facts, to discover inconsistencies, to make decisions, and to create solutions among others. All presenters will illustrate how mathematics helps them advance understanding in a particular area, and/or in their personal lives. It is our hope that by being able to relate mathematics to the field of one's interest, one will be more motivated to study mathematics and to understand how to use it to advance their personal, academic and professional life.

Mathematics Day @ Hostos offers different venues for students, faculty, and administrators to experience mathematics, such as speakers, presenters, panels, interactive activities, and the written contribution component. All are designed for you to explore and share the meaning and importance of mathematics in a person's life. Mathematics Day @ Hostos is an extraordinary opportunity that we have at Hostos Community College to consider mathematics outside the classroom and to have conversations with faculty and student presenters to learn how mathematics can make a difference in a person's life and in society.

Finally, I would like to express my deepest gratitude to all who made this event possible. Thanks to all for making of this a unique celebration of Mathematics at Hostos.

We hope this event will motivate you to identify the mathematics most related to your interests and to discover how to use it to support the achievement of your dreams!

Thank you very much.

Sincerely,

Clara Nieto-Wire, Ph.D  
Event Coordinator &  
Chair of the Mathematics Day Organizing Committee

# Hostos Engineering Academic Talent (HEAT) Scholarship Program\*



**HEAT**, funded by the National Sciences Foundation S-STEM (Science, Technology, Engineering and Math) program, will contribute to the national need for well-educated STEM professionals by supporting the success of thirty **HEAT Scholars** who are pursuing associate's and bachelor's degrees in engineering. This project is led by Hostos Community College (HCC), an urban Hispanic-Serving Institution in Bronx, NY, and member of The City University of New York system. The project will support the retention and graduation of high-achieving, low-income students with demonstrated financial need in partnership with The City College of New York's Grove School of Engineering (CCNY's GSoE). Over five years, this project will fund up to 110 annual scholarships. Each scholarship will provide a full year of financial support for up to four years of study, including up to **two years at HCC** and up to **two years at the CCNY's GSoE**. The project will increase the impact of the scholarship support by providing Scholars with **mentoring by faculty** and **near-peers** and ensuring that the **HEAT Scholars** take full advantage of available resources and professional development opportunities that are associated with student success.

## These resources include:

- **writing across disciplines** in the STEM curriculum;
- mentored immersive **undergraduate research experiences**;
- **guidance** and **support** for transfer to a **four-year institution**;
- exposure to **STEM-related working** and **professional facilities**;
- participation at **professional STEM conferences**; and
- **career orientation workshops** and other **professional development opportunities**.

## Requirements:

- Be **U.S. Citizen**, Permanent Resident, **National**, or Refugee;
- Be enrolled in one of the **Engineering Programs**; and
- Maintain a **3.0 overall GPA** and a minimum **3.0 College Math and Science GPA**.

## For more information, contact:

HEAT Program Assistant | Room A-507R

[nsfstemHEAT@hostos.cuny.edu](mailto:nsfstemHEAT@hostos.cuny.edu)

\***NSF S-STEM Award: DUE-1833767**



# EVENT

# SCHEDULE

10:50-11:00am    **Registration**

## SESSION 1: OPENING CEREMONY

11:00-12:15pm    **Welcome**

Dr. Clara Nieto-Wire.  
4<sup>th</sup> Annual Mathematics Day @ Hostos Event Coordinator  
Mathematics Department

### Opening remarks

Dr. Christine Mangino, Provost and Vice President for Academic Affairs  
Dr. Felix Cardona, Assistant Dean of Academic Affairs  
Mr. Raziel Benreuben, President of the Student Government Association  
Prof. Cynthia Jones, Chair of the General Education Committee  
Dr. Nieves Angulo, Chair of the Mathematics Department

### Mathematics Day Awards Presentation

#### Peer Leaders Recognition

Presenter: Prof. Gisselle Guzmán, Mathematics Department  
Award recipient: Abraham Ferrera  
Award recipient: Daniel Vasquez  
Award recipient: Ian Jimenez

#### Winners of the Math Murder Mystery Contest:

Presenter: Dr. Terence Brenner, Mathematics Department  
Winners: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> places

### Faculty Presentations

- ◆ "Cultures and Mathematics"  
Prof. Thomas Beachdel, Humanities
- ◆ "Divide and Conquer – A Common Technique to Understand Difficult Problems"  
Prof. Tanvir Prince, Mathematics

**Refreshments will be served**

## SESSION 2

12:30-1:45pm    **Session Chair** - Prof. Moise Koffi, Mathematics

### Faculty Presentations

- ◆ "Can mathematics education be politically neutral? Extreme example of North Korea"  
Prof. Jung Hang Lee, Mathematics
- ◆ "Beyond the Classroom: What is Mathematics Education?"  
Prof. Anders Stachelek (AJ), Mathematics

### Panel Discussion

"Voices from the Students: Mathematics - Personal Views and Experience"

Moderator: Dean Felix Cardona, Assistant Dean of Academic Affairs

Panelists: Prof. Jung Hang Lee, Mathematics – HCC

Prof. Anders Stachelek (AJ), Mathematics - HCC

Prof. Nancy Genova, Behavioral and Social Sciences- Public Admon. - HCC

Prof. Antonios Varelas, Behavioral and Social Sciences -Psychology

Prof. Juno Morrow, Humanities-Media Design - HCC

## **Exhibits**

- ◆ "Origami"  
Prof. James Kennis, Mathematics
- ◆ "Table Games and Playful Mathematics"  
Prof. Ramón Gómez & Prof. Armando Amador, Mathematics
- ◆ "3D Printing"  
Prof. Yoel Rodríguez, Natural Sciences  
Students: Damien Yule, Kingsley Odae, Nyomor-Da O Tackie-Yarboi
- ◆ "VEX ROBOTICS PROJECT"  
Prof. Moise Koffi, CSTEP/ Mathematics  
Ms. Briseida Cortez, CSTEP coordinator  
Mr. Lubrun Stephane, CSTEP robotics instructor
- ◆ "Tell The 3D Information of An Environment To the Visually Impaired People"  
Prof. Jiang Biao, Natural Sciences  
Students Vanessa Pujols
- ◆ "Vedic Mathematics"  
Prof. Lauren Wolfe & Prof. Edme Soho, Mathematics  
Mathematics Club Students
- ◆ "A Five Year Old Can Do Graduate-Level Mathematics"  
Prof. Anders Stachelek (AJ), Mathematics

**Refreshments will be served**

## **SESSION 3**

**2:00-3:15pm**

**Session Chair - Prof. Anders Stachelek (AJ), Mathematics**

### **Faculty Presentations**

- ◆ "How understanding math basics helps the process of identifying and resolving poor health outcomes"  
Prof. Nancy Genova, Behavioral and Social Sciences – Public Administration
- ◆ "Online learning at Hostos: Some Numbers!"  
Prof. Kate Wolfe & Prof. Kristopher Burrell, Behavioral and Social Sciences

### **Panel Discussion**

"Voices from the Faculty: Mathematics - Personal Views and Experience"

Moderator: Dr. Ann Mester, Associate Dean of Academic Affairs

Panelists: Raziel Benreuben - Mathematics - HCC

Vanessa Pujols, Civil Engineering – CCNY (HCC Alumni).

Daisha Martinez, Nursing – Lehman (HCC Alumni).

Ramatoulaye Diallo – Liberal Arts & Sci – HCC

Saul Morel – Media Design – HCC

Ancy Skaria, The Graduate Center – CUNY

## **Exhibits**

- ◆ "Origami"  
Prof. James Kennis, Mathematics
- ◆ "Table Games and Playful Mathematics"  
Prof. Ramón Gómez & Prof. Armando Amador, Mathematics
- ◆ "3D Printing"  
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- ◆ "VEX ROBOTICS PROJECT"  
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Ms. Briseida Cortez, CSTEP coordinator  
Mr. Lubrun Stephane, CSTEP robotics instructor
- ◆ "Tell The 3D Information of An Environment To the Visually Impaired People"  
Prof. Jiang Biao, Natural Sciences  
Student: Vanessa Pujols
- ◆ "Vedic Mathematics"  
Prof. Lauren Wolfe & Prof. Edme Soho, Mathematics  
Mathematics Club Students
- ◆ "A Five Year Old Can Do Graduate-Level Mathematics "  
Prof. Anders Stachelek (AJ), Mathematics

**Refreshments will be served**

## SESSION 4: SESSION FOR FACULTY, STAFF & ADMINISTRATORS

**3:40-4:45pm**

**Faculty Dining  
Room (FDR)**

### Welcome

Dr. Clara Nieto-Wire, Event Coordinator & Chair of the Mathematics Day Organizing Committee

### Session Remarks

Office of Academic Affairs

Dr. Christine Mangino, Provost and Vice President for Academic Affairs

Mathematics Department

Dr. Nieves Angulo, Chair of the Mathematics Department

### Panel Discussion

"Mathematics-Numeracy-QR at Hostos. What have we tried? What have we learned? What works? What is still challenging?"

Panelists/Presenters: Prof. Cynthia Jones, Chair of the General Education Committee - HCC

Prof. Sarah Hoiland, Behavioral and Social Sciences - HCC

Prof. Kate Wolfe, Behavioral and Social Sciences - HCC

Prof. Karen Steinmayer, Behavioral and Social Sciences - HCC

Prof. Nancy Genova, Behavioral and Social Sciences - HCC

Ms. Nana Mukbaniani, QR Fellow at HCC

### Feature Slide Show

Prof. Tanvir Prince, Mathematics Department

## SESSION 5

**5:30-6:45pm**

**Session Chair - Prof. Clara Nieto-Wire, Mathematics**

### Faculty Presentations

- ◆ "Environmental Protection via Optimal Global Economic Restructuring "  
Prof. Alexander Vaninsky, Mathematics
- ◆ "How understanding math basics helps in the process of identifying and resolving poor health outcomes "  
Prof. Nancy Genova, Behavioral and Social Sciences- Public Administration
- ◆ "Beyond the Classroom: What is Mathematics Education?"  
Prof. Anders Stachelek (AJ), Mathematics

- ◆ "Integrating data visualization tools into the curriculum in order to engage students in telling stories using data"

<sup>1</sup>Prof. Reginald Dorcely & <sup>2</sup>Mr. Jeff Barness, <sup>1</sup>Mathematics & <sup>2</sup>IT Department

## Panel Discussion

"Voices from the Faculty: Mathematics - Personal Views and Experience"

Moderator: Dr. Claude Brathwaite – Director of Resources and Services, Grove School of Engineering - CCNY

Panelists: Prof. Nancy Genova Behavioral and Social Sciences – HCC

Prof. Kate Wolfe, Behavioral and Social Sciences – HCC

Prof. Jiang Biao, Naturals Sciences – HCC

Prof. Manuel Livingstone – Allied Health – Radiology - HCC

Prof. Anders Stachelek, Mathematics - HCC

## Exhibits

- ◆ "Origami"

Prof. James Kennis, Mathematics

- ◆ "Table Games and Playful Mathematics"

Prof. Ramón Gómez & Prof. Armando Amador, Mathematics

- ◆ "3D Printing"

Prof. Yoel Rodríguez, Natural Sciences

Students: Damien Yule, Kingsley Odae, Nyomor-Da O Tackie-Yarboi

- ◆ "VEX ROBOTICS PROJECT"

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- ◆ "Tell The 3D Information of An Environment To the Visually Impaired People"

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Students Vanessa Pujols

- ◆ "Vedic Mathematics"

Prof. Lauren Wolfe & Prof. Edme Soho, Mathematics

Mathematics Club Students

- ◆ "A Five Year Old Can Do Graduate-Level Mathematics"

Prof. Anders Stachelek (AJ), Mathematics

**Refreshments will be served**

**Adjourn**



## Student Government (SGA)

One of the main organizations that serves and represents the needs and interests of students at the Hostos Community College is the Student Government Association (SGA). SGA is comprised of sixteen (16) members, seven (7) of which serve as Executive Officers and nine (9) as Senators. SGA members are part of many important college-wide committees including the Hostos Association, College-Wide Senate, Auxiliary Enterprise Committee, Technology Fee Committee, Space Requests Committee and others. SGA organizes cultural, educational and social activities for the student body throughout the school year. It also assists student organizations in the planning and development of their activities.



### SGA Executive Board

The members of the Student Government Executive Board shall be the SGA President, the Vice President for Academic Affairs, the Vice President for Student Affairs and Community Relations, the Budget and Finance Commissioner, the Executive Secretary and appointed by the SGA President with the Consent of the Hostos Student Senate an Evening and Part-Time Student Affairs Commissioner and a Campus Affairs Commissioner.

To learn more about the Student Government Association (SGA), visit one of the offices listed below or contact them via e-mail at [studentgovernment@stu.hostos.cuny.edu](mailto:studentgovernment@stu.hostos.cuny.edu).

### General Information

- The SGA Conference Room is located in room C-534
- SGA mailboxes are located at the SGA Conference Room (C-534)
- All SGA Senate Meetings are open to Hostos Students and the college population
- SGA Elections are held annually in the Spring semester
- SGA members are elected to office for a one (1) year term



## PROGRAM DESCRIPTION

ASAP is designed to help associate degree seeking students earn their degrees as quickly as possible, with a goal of graduating at least 50% of students within three years. Due to a variety of stressors and responsibilities, many students are not able to complete their associate degrees in a timely manner, if at all. ASAP helps to eliminate these stressors by providing students with the academic, social, and financial support they need to graduate with an associate degree in no more than three years. Key ASAP program features include required full time study, comprehensive and personalized advisement, career development services and a consolidated block schedule. Financial incentives include waivers of tuition and mandatory fees for financial aid-eligible students, textbook assistance, and unlimited Metrocards for all students.

## ELIGIBILITY REQUIREMENTS

ASAP is offered at Hostos Community College to all majors, excluding Allied Health.

**You may be eligible for ASAP if you answer YES to the following questions:**

- Have you applied and been accepted to Hostos Community College?
- Are you eligible for New York City resident tuition or New York State resident tuition?
- Do you agree to enter into a full-time associate degree program in an ASAP-approved major?
- Are you fully skills proficient or have no more than two outstanding developmental course needs in reading, writing, and math based on CUNY Assessment Test scores?
- Have you completed the Free Application for Federal Student Aid (FAFSA) and the New York State Tuition Assistance Program (TAP) application?
- If you are a continuing or transfer student, do you have no more than 15 college credits and a minimum GPA of 2.0?

## CONTACT INFORMATION

Ancy Skaria, ASAP Academic Program Specialist. Location: C-511L  
Phone: (718) 518-6884 Email address: [askaria@hostos.cuny.edu](mailto:askaria@hostos.cuny.edu)

## UPCOMING EVENTS

Please contact Ancy Skaria for details.

# REFLECTIONS ON MATHEMATICS IN GAME DESIGN

By Sande Chen

I went to a university so nerdy that answering calculus problems was sometimes the only way to gain entrance to a frat party. Knowledge of mathematics was expected, even of humanities majors like myself. I soon learned that my economics classes were full of calculus proofs and my writing classes, more often than not, had a scientific focus. There was no escape, it seemed, from numbers and mathematics.

Mathematics could be scary. I hated calculating triple integrals. I doubted myself. In my freshman year, I turned down an exciting opportunity to help build a microscope to be sent to outer space because I feared I could not do the calculations. It was not until my class in econometrics that I began to find my way. Unlike today, the tedious number crunching was done by hand rather than computer, but that was helpful to me because then I could clearly see from the large data sets what variables were affecting what.

Despite my initial reluctance, a love affair with numbers would serve me well in my chosen field of game design. It seems odd in these times of free-to-play business models and monetization design, but back then, it was fairly common that I would be asked how my economics background might benefit my career in the game industry. In those days, game companies did not have data divisions devoted to figuring out whether blue or pink lettering sold better. Still, I would point out that in economics, we learn how systems work - how one thing affects another – and that is exactly what a game designer needs to know.

A game designer is often in front of a spreadsheet with a large set of numbers. It's not just about determining prices, but sometimes it's about figuring out hit points, experience points, damage percentages, probabilities, and various character stats. So much of what a game designer does is surrounded by numbers. You could say it's about learning how to think like computer, but even analog games that don't need computers can need numbers. Many beginning game designers ask, "How do we figure out which numbers to use? There are so many things that need numbers." The answer? By using mathematics.

Moreover, mathematics is truly a universal language. Even in first contact sci-fi movies, we try to communicate with space aliens using mathematics! If a game designer needs to explain how something will work to a computer programmer, then using mathematical equations is one of the best ways. If a game design has to be passed along to a second game designer, then finding mathematical equations in the documentation is such a relief, much better than seeing a bunch of numbers without any explanations. Simply put, mathematics allows you to express the relationships between sets of numbers in a very precise manner. And for game designers, it's best to be precise because the job requires you to know which numbers to use and on what.

This is particularly important to remember when you have loads and loads of numbers that are representing any number of things: weapons, spaceships, armor, potions, psi powers, etc. Since there are newb items or powers ranging up to elite, this means there are number sets. If the game designer finds out that one of the Level 1 items is too strong, then it is much easier to readjust the game balance when all the relationships are known. The entire number set may have to be evaluated and tweaked. You will want to know right away what other numbers are affected by that one change.

The importance of mathematics to game design sometimes comes as a surprise to beginning students. They may have thought of game designers as the “idea people,” but they did not really know what “idea people” actually do. Turning a game idea into reality requires more than hand-waving, especially when there are lots of numbers involved. Game designers can use mathematics to clearly specify their designs.

In short, love math and love games!



# **PRES**ENTATION **A**BSTRACTS

## **SESSION 1**

### **Cultures and Mathematics**

Presenter:

**Thomas Beachdel,**

Assistant Professor, Humanities Department

This presentation briefly touches on the presence of mathematical thinking, particularly in connection with implicit cultural ideologies, across a vast range of time and space.

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### **Divide and Conquer – A Common Technique to Understand Difficult Problems**

Presenter:

**Tanvir Prince,**

Associate Professor, Mathematics Department

You may learn many formulas and theorems in your lifetime but it is the technique that stays with you. One of the common techniques that is used in STEM is “Divide and Conquer.” In this presentation, I will describe my personal story about how I overcame a great barrier as a student using the technique of “Divide and Conquer.”

## **SESSION 2**

### **Can mathematics education be politically neutral? Extreme example of North Korea**

Presenter:

**Jung Hang Lee,**

Assistant Professor, Mathematics Department

This presentation addresses mathematics education in one of the most closed countries in the world — North Korea, as an extreme example of political influences on mathematics education. North Korean secondary school mathematics education is examined through the review of North Korea’s social and educational structures as well as its political and ideological position. In-depth interviews were conducted with defectors, who are now in South Korea, former secondary school mathematics teachers and students, to understand their real life experiences in school mathematics in North Korea. Workers’ Party’s influence on mathematics education and the impact the March of Suffering are examined. There are two main focuses of this workshop. One is to introduce an extreme case study of mathematics education in North Korea influenced by political and ideological standpoint. This will broaden the participants’ understanding of mathematics education as not only a self-regulating subject, but also as an interwoven matter shaping and shaped by the vessel and the people in it. This will also propose a chance to reassess the participant’s own mathematics education system with possibly enhanced span

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### **Beyond the Classroom: What is Mathematics Education?**

Presenter:

**Anders Stachelek ,**

Assistant Professor, Mathematics Department

It may come as no surprise that the field of mathematics education investigates ways to improve the teaching of mathematics concepts in the classroom, but did you know that this field extends far beyond the day-to-day classroom presentations of skills and formulas you often experience? In this presentation, you will learn what other aspects of education have a dramatic impact on the lives of individuals that are all a part of the field of mathematics education. In particular, the presenter will share some systemic issues and contextual constructs that impede the learning of mathematics for many students.

## SESSION 3

### How understanding math basics helps in the process of identifying and resolving poor health outcomes

Presenter:

**Nancy Genova,**

Assistant Professor, Behavioral and Social Sciences Department

According to the New York State Office of Professions the Bronx has 2,065 licensed physicians. The Bronx is also home to nine major hospitals that have thousands of employees. Montefiore alone is one of the hospitals in the Bronx staffed with approximately 17, 600 employees. The physicians in the Bronx appear to be well rated by the patients on [www.ratemds.com](http://www.ratemds.com) site. The Centers for Disease Control (CDC,) defines infant mortality as a death of an infant before their first birthday. The infant mortality rate is used as a measure of population health. The infant mortality in the Bronx is 5.4% of 1,000 births with an alarming rate of 8.7 in East Tremont. Translated this indicates that close to nine infants out of every 1,000 births die in parts of the Bronx. The rate is inconsistent with the amount of medical resources available. In addition to this a report issued by the New York City Department of Health and Mental Hygiene states that New York State is ranked 30<sup>th</sup> in the United States for maternal deaths. That is a death that results from pregnancy. The report states in regards to what lead to the untimely death; “*included failure in recognizing the condition and getting timely treatment; delay in the administration of treatment; and break in communication*”<sup>1</sup>. For the purposes of this paper women of the Bronx that have experienced poor birth outcomes will be interviewed in an effort to gage what happened in the course of pregnancy. Bronx medical providers and nurses who provide obstetrics services in the areas of highest infant and maternal mortality will be interviewed in an effort to identify what their witnessing. Social workers in the same high risk areas will be interviewed to identify what programs the most vulnerable pregnant women are being referred to. The process is an effort to provide recommendations towards public policy that is responsive to the needs of this vulnerable population and will lead to a coordinated response that will improve birth outcomes.

<sup>1</sup>Care and services provided for 17.7% of the women in the pregnancy-related death cohort were deemed not in accordance with national professionally recognized standards or guidelines. A large percentage of the instances where care was not in accordance to standards were preventable deaths (87.5%). Most deficiencies were noted in the physician, midwife or resident area and included failure in recognizing the condition and getting timely treatment; delay in the administration of treatment; and break in communication.

### “Online Learning at Hostos: Some Numbers!”

Presenter:

**Kate Wolfe & Kristopher Burrell,**

Assistant Professors, Behavioral and Social Sciences Department

In 2015 the Hostos Online Learning Assessment (HOLA) task force was formed in order to better understand how Hostos students perceive their online courses. We began gathering data and have collected data for 4 years now. This historian and psychologist will reveal the most recent results of the student perceptions survey showing how we use descriptive data gathered through Google Forms to address three hypotheses. Online course enrollment has increased greatly in the last 5 years. About 2000 students enroll in online courses every semester. Our research has found support for our three hypotheses:(1) students would indicate that their experiences in online courses is comparable to their experiences in face-to-face courses (in terms of workload, level of course difficulty, and engagement with both the instructor and other students in the course); (2) students would access the course from multiple devices and multiple locations, and (3) students would indicate ease in navigating their hybrid and asynchronous courses. We hope this research will help inform how students, staff, faculty and administrators view online learning here at Hostos .

## SESSION 4

**Session open only to Faculty, administrators and staff**

As seen on a t-shirt worn by a Bronx resident: “*if money is power than poverty is silence*”

## SESSION 5

### Environmental Protection via Optimal Global Economic Restructuring

Presenter:

**Alexander Vaninsky ,**

Professor, Mathematics Department

This research introduces principals, model, and computer program aimed to support the environmental policies intended for energy-environmentally friendly economic growth by the way of optimal economic restructuring. It aims to provide the maximum available rate of economic growth constrained by the steepest possible decrease in energy consumption and the greenhouse gas emissions. It utilizes three types of the input-output models (conventional, energy related, and greenhouse gas emissions related), factorial models, factor analysis, and a structural change analysis invented in (Meerovich, 1974). The latter states that the economic structure should be changed proportionally to the deviation from the corresponding average intensity.

This presentation demonstrates application of the suggested approach by simulation of the optimal economic restructuring of the economies of the United States and China for the period of 1995-2009. We analyze similarities and the differences in the economic restructuring, and consider the possible impact on the environmental policy and bilateral trade. In computations, we use statistical information of the World Input-Output Database ([www.wiod.org](http://www.wiod.org)). A computer program in R language is developed to support the computations .

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### How understanding math basics helps the process of identifying and resolving poor health outcomes

Presenter:

**Nancy Genova,**

Assistant Professor, Behavioral and Social Sciences Department

According to the New York State Office of Professions the Bronx has 2,065 licensed physicians. The Bronx is also home to nine major hospitals that have thousands of employees. Montefiore alone is one of the hospitals in the Bronx staffed with approximately 17, 600 employees. The physicians in the Bronx appear to be well rated by the patients on [www.ratemds.com](http://www.ratemds.com) site. The Centers for Disease Control (CDC,) defines infant mortality as a death of an infant before their first birthday. The infant mortality rate is

used as a measure of population health. The infant mortality in the Bronx is 5.4% of 1,000 births with an alarming rate of 8.7 in East Tremont. Translated this indicates that close to nine infants out of every 1,000 births die in parts of the Bronx. The rate is inconsistent with the amount of medical resources available. In addition to this a report issued by the New York City Department of Health and Mental Hygiene states that New York State is ranked 30<sup>th</sup> in the United States for maternal deaths. That is a death that results from pregnancy. The report states in regards to what lead to the untimely death; “*included failure in recognizing the condition and getting timely treatment; delay in the administration of treatment; and break in communication*”<sup>1</sup>. For the purposes of this paper women of the Bronx that have experienced poor birth outcomes will be interviewed in an effort to gage what happened in the course of pregnancy. Bronx medical providers and nurses who provide obstetrics services in the areas of highest infant and maternal mortality will be interviewed in an effort to identify what their witnessing. Social workers in the same high risk areas will be interviewed to identify what programs the most vulnerable pregnant women are being referred to. The process is an effort to provide recommendations towards public policy that is responsive to the needs of this vulnerable population and will lead to a coordinated response that will improve birth outcomes.

As seen on a t-shirt worn by a Bronx resident: “*if money is power than poverty is silence*”

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<sup>1</sup>Care and services provided for 17.7% of the women in the pregnancy-related death cohort were deemed not in accordance with national professionally recognized standards or guidelines. A large percentage of the instances where care was not in accordance to standards were preventable deaths (87.5%). Most deficiencies were noted in the physician, midwife or resident area and included failure in recognizing the condition and getting timely treatment; delay in the administration of treatment; and break in communication.

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### Beyond the Classroom: What is Mathematics Education?

Presenter:

**Anders Stachelek ,**

Assistant Professor, Mathematics Department

It may come as no surprise that the field of mathematics education investigates ways to improve the teaching of mathematics concepts in the classroom, but did you know

that this field extends far beyond the day-to-day classroom presentations of skills and formulas you often experience? In this presentation, you will learn what other aspects of education have a dramatic impact on the lives of individuals that are all a part of the field of mathematics education. In particular, the presenter will share some systemic issues and contextual constructs that impede the learning of mathematics for many students.

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### **Integrating data visualization tools into the curriculum in order to engage students in telling stories using data**

Presenters:

<sup>1</sup>**Reginald Dorcely & <sup>2</sup>Jeff Barnes,**

<sup>1</sup>Adjunct Lecturer, Mathematics Department &

<sup>2</sup>Deputy CIO, IT Department

The purpose of this presentation is show how student researchers can use data visualization to tell stories. To carry out this project, students learn how to:

- Import their original research data or data they retrieved from NY Open Data into MS Power BI Service portal
  - Use the BI tools to create visualizations of their research results.
  - Use the data visualizations to tell a narrative about their findings.
  - Students and their audience are actively engaged in the presentation where they are exposed to a field of mathematics that is in high demand.
-

# **PANELS — DESCRIPTIONS**

## **Voices from the Faculty: Personal Story and Mathematics**

### **Panel Discussion – Session 2 (12:30 pm – 1:45 pm)**

Panelists will share their views on the impact of Mathematics in their lives, and discuss how mathematics aids advancement at different levels: personal, professional, social, technical, etc. The purpose of this panel is also to explore the importance of Mathematics from different perspectives and disciplines, and to raise awareness of the benefits of being proficient in Mathematics. Questions from the audience will be encouraged and allowed as much as time permits.

## **Voices from Our Students: Personal Story and Mathematics**

### **Panel Discussion – Session 3 (2:00 pm – 3:15 pm)**

This is a panel in which Hostos students and alumni will share their experiences with Mathematics. They will share what challenges they have encountered along the way and how they overcame them. Student panelists will also share with the audience their advice on how to succeed in Mathematics and the importance of Mathematics in achieving their dreams (personally, academically, and professionally). Questions from the audience will be encouraged and allowed as much as time permits.

## **Voices from the Faculty: Personal Story and Mathematics**

### **Panel Discussion – Session 5 (5:30 pm – 6:45 pm)**

Panelists will share their views on the impact of Mathematics in their lives, and discuss how mathematics aids advancement at different levels: personal, professional, social, technical, etc. The purpose of this panel is also to explore the importance of Mathematics from different perspectives and disciplines, and to raise awareness of the benefits of being proficient in Mathematics. Questions from the audience will be encouraged and allowed as much as time permits.

# Title V Hispanic Serving Institutions Grant: *Adelante*

In October 2014, Hostos Community College received a five-year Title V grant totaling \$2.5 million to increase student opportunities for success and to expand professional development opportunities for faculty through curriculum development and research.

The grant supports various Hostos' strategic plan goals, which focus on remedial and developmental student needs, first year student success, teaching and learning supports and leadership development for students and faculty as well as an increase in student performance, retention and completion rates.

Since fall 2014, Title V has provided access to a greater number of Hostos students to participate in Supplemental Instruction, Small Group Tutorials, and Research. Opportunities to increase faculty participation in professional development activities that include curriculum redesign, research and conference grants have also been a major focus of this grant.

## STAFF

Silvia Reyes—Director—ext. 6637

Amalia Wilson—Coordinator—ext.6871

Sarah Brennan—Faculty Activity Director—ext.6753

Tamilee Pichardo—Program Associate—ext.2650



## Upcoming Events

### Title V

#### The Last Five Years

April 10,2019

3:30pm-5:00pm

Hostos Art Gallery

## 2019 Summer Institute for Undergraduate Student Research

Two-week intensive introduction to research methods and tools for continuing Hostos students.

This intensive institute will engage students in scholarly work at the undergraduate level through seminars and tutorial-style sessions. Selected students will work under the guidance of a faculty mentor on a project of their own choosing. Student participants will develop individual, original research ideas, create a scholarly research paper or project and formally present their work to their peers at the end of the program.

The program will run June 5<sup>th</sup> through June 13<sup>th</sup>, 2019. Students will spend five-hour days – 10am to 3pm – with each other engaged in reading, writing, and critically thinking about their research topics.

For more information visit us in room B-419 or email us at

[TitleV@hostos.cuny.edu](mailto:TitleV@hostos.cuny.edu)

# **EXHIBITS — DESCRIPTIONS**

## **Origami – Prof. James Kennis**

Mathematics is experienced in everyday life activities. Most of us go through the day unaware of this fact. We welcome you to come and visit the “Origami” stand and experience Mathematics through hands-on activities.

## **Table Games and Playful Mathematics – Prof. Ramón Gomez**

There is a playful aspect of Mathematics that is embedded in social activity. We invite you to visit “The Table Games and Playful Mathematics” stand and experience Mathematics through puzzles and patterns and see how much fun Mathematics can be!

## **3D Printing Exhibit – Prof. Yoel Rodríguez**

What is 3D printing? - 3D printing is a process of making three-dimensional solid objects from a digital file. Today, 3D printing is widely used in the medical industry, aerospace and aviation industries, automotive industry and so forth. We welcome you to stop by our stand to find out how a 3D Printer works and its application. Join us and make your own printing!!!

## **Tell The 3D Information of An Environment To the Visually Impaired People – Prof. Biao Jiang**

Visually impaired people navigation in an indoor environment is urgently required, especially the indoor environment is highly dynamic and GPS denied. Besides, the visually impaired people cannot have a sense of the environment and also suffers from obtaining the knowledge of distance information. To solve this problem, we proposed a deep neural network (DNN) based RGB-D camera system. The DNN is used to detect the objects and the RGB-D camera helps to obtain the spatial relationship between the objects and the person. Then, the object with spatial relation is used to generate a description, which can help the visually impaired people to have an idea the objects 3D spatial relation to the person itself.

## **VEX Robotics Project**

Vex Robotics kits are used by students to design and build robots to complete specific tasks such as launching balls. The current project enables students to learn basic concepts such as torque, gear ratio, center of gravity...etc., which are involved in motion mechanics. Students are also familiarized with simple electrical circuits and their wiring as well as computer programming with Easy C. The exhibition activity should allow students to maneuver and control robotic devices, preparing them for future completions.

## **Vedic Mathematics – Prof. Lauren Wolf & Prof. Edme Soho**

Vedic Mathematics is an ancient Indian method for computing otherwise long computational problems with quick easy tricks. We will be multiplying and squaring large numbers with ease. Professor Wolf and Professor Soho invite you to come to their stand and try some computations using this mysterious Math!

## **A Five Year Old Can Do Graduate-Level Mathematics – Prof. AJ Anders Stachelek**

All too often, mathematics is said to be too difficult a subject to learn – it must require years to start to understand this subject. Would you believe me if I told you a five year old can do advanced mathematics? Don't believe me? Visit this table and learn graduate-level graph theory concepts through the lens of a child!



## HOSTOS BMI TEAM

### Together Everyone Achieves More

**BMI TEAM** is a CUNY wide program designed to unite Black and Latino STEM majors in order to enhance the experience of incoming freshmen and upperclassmen. Through mentoring, tutoring, and networking, **BMI TEAM** hopes to instill the key skills and values necessary to ensure future success as members move forward in their studies and careers. **TEAM** stands for Together wE Achieve More, emphasizing the community that will be built and the subsequent possibilities that will open up for every member. This community will be born from the shared backgrounds and experiences of members.

Mentors will guide incoming freshmen, showing them how to juggle ever increasing workloads and other aspects of school life. These mentors are veterans of college life and will be invaluable support nets who will be available for one on one talks. Our specialized tutors will help freshmen with STEM coursework and provide additional tips to help them with their exams throughout the semester.

Events and conferences will serve not only as a means of networking and reflection, but also as information sessions regarding careers in the STEM fields, research opportunities, scholarships, and workshops. **BMI TEAM** is a program found in other CUNY schools and as such, we will be in frequent contact with these other BMI programs.

**BMI TEAM** looks toward becoming a widespread and welcome presence on campus, increasing the presence of minorities in the STEM fields!

For more information, contact:

Mr. Christian Huacón and Mr. Luis Tejeda, BMI Co-Coordinators  
Room A417 | [HostosBMITeam@gmail.com](mailto:HostosBMITeam@gmail.com)

Profs. N. Nuñez-Rodríguez and Y. Rodríguez, BMI Co-Directors  
Natural Sciences Department



# **Hostos Academic Learning Center**

The Hostos Academic Learning Center (HALC), located in C-596, is a complete learning environment that allows students to receive the academic help they need in a setting that is rich in resources and supports academic success. Tutoring services are available at the HALC in most introductory courses offered at Hostos. Tutors work with students either one-on-one or in small groups to provide general course review, and to support the development of study skills, time management and organization skills.

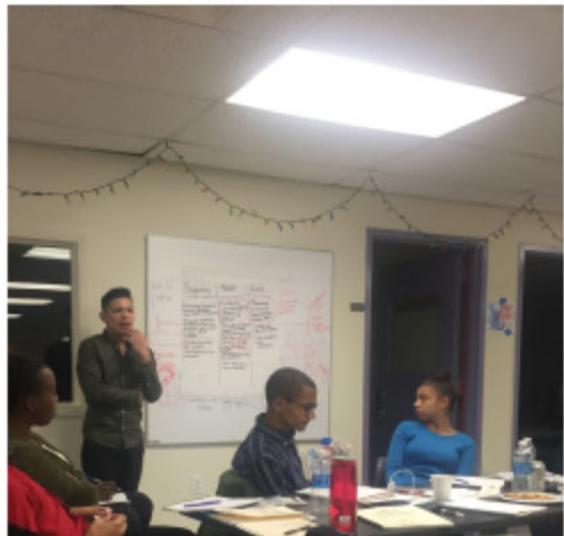
## **Hours:**

**Monday-Thursday**

**10:00am-9:00pm**

**Friday 10:00am-3:00pm**

**Extended Hours During  
Midterms and Finals**



# **BIOGRAPHICAL PROFILES**

## **JEFF BARNES**

Mr. Jeff Barnes is the Deputy CIO in the IT Dept. (Power BI technical assistance) at Hostos Community College.

## **THOMAS BEACHDEL**

Felix Cardona, B.A., J.D., is currently the Assistant Dean of Academic Affairs of Hostos Community College. Previously, Dean Cardona served as chair and faculty of the Behavioral and Social Sciences Department of Hostos Community College. Dean Cardona's area of research is Public Policy and Constitutional Governance. Dean Cardona has been instrumental in the development of new agreements between Hostos and other CUNY Colleges, and diverse programs within Hostos, including the newly developed Food Studies Program

## **RAZIEL BENREUBEN**

I am a Mathematics major, Senior at Hostos and a Junior at the 4-year Senior College. My professional aspiration is to become a Software Developer and Computer Engineer. Mathematics has changed the way I view the world. Math is a universal language and connects people across the world. Major decisions that affect us all are based on mathematics and I am no different. I am grateful for the understanding I have and the level of mathematics I am studying. Mathematics will be a part of my life forever and I would like to

help those who struggle with their understanding of it, to be more confident in the future.

## **CLAUDE BRATHWAITE**

Dr. Claude Brathwaite currently serves as the Director for Resources and Services at the Grove School of Engineering (City College of New York). He served as the Executive Director, (2016-2018), for the New York City Louis Stokes Alliance for Minority Participation in Science, Technology, Engineering and Mathematics. Prior to serving in that role he was the Project Administrator from 1998 to 2016. Claude initially attended Hostos Community College and later received his BS in Chemistry from the City College of the City University of New York and his Ph.D. in Organic Chemistry from the Graduate Center of the City University of New York. He was a Chancellor's Fellow (City University of New York) and a NIH Postdoctoral Fellow (Weill Cornell Medical College-Division of Molecular Medicine). Claude also served as the Co-Director of the Black Studies Program at the City College and the Project Director of the City College Black Male Leadership and Mentoring Program. The Black Male Leadership and Mentoring Project (BMLMP) at the City College of New York, provides a support system during the critical stages of academic and career development.

## **KRISTOPHER BURRELL**

Dr. Kristopher Burrell is an Assistant Professor of History at Hostos Community College. Dr. Burrell earned his doctorate in U. S. History from the CUNY Graduate Center in 2011. His research interests include the civil rights movement in New York City and twentieth century African American intellectual history. Dr. Burrell has historical publications in the Western Journal of Black Studies in the spring 2012 issue, "Where From Here? Ideological Perspectives on the Future of the Civil Rights Movement, 1964 -1966," as well as essays in online forums Public Seminar and The Gotham Center for New York City History in 2018. He has a chapter titled, "Black Women as Activist Intellectuals: Ella Baker and Mae Mallory Combat Northern Jim Crow in New York City's Public Schools during the 1950s" that will appear in The Strange Careers of the Jim Crow North: Segregation and Struggle outside of the South (forthcoming, NYU Press 2019). Dr. Burrell also has a pedagogical publication about online learning in the Hispanic Educational Technology Services Online Journal (April 2016). Dr. Burrell is currently working on a book

manuscript tentatively titled, Outsmarting Racism: New York's Black Intellectuals and Theorizing Northern Racism, 1945-1968. He is proud to have been born and raised in Harlem, New York .

## **FELIX CARDONA**

Felix Cardona, B.A., J.D., is currently the Assistant Dean of Academic Affairs of Hostos Community College. Previously, Dean Cardona served as chair and faculty of the Behavioral and Social Sciences Department of Hostos Community College. Dean Cardona's area of research is Public Policy and Constitutional Governance. Dean Cardona has been instrumental in the development of new agreements between Hostos and other CUNY Colleges, and diverse programs within Hostos, including the newly developed Food Studies Program

## **SANDE CHEN**

Sande Chen is Assistant Professor of Game Design in the Department of Humanities. She has worked in the game industry for over 15 years as a producer, writer, and game designer. Her game credits include the 1999 Independent Game Festival winner Terminus and 2007's PC RPG of the Year, for which she was nominated for a Writers Guild of America Award in Videogame Writing. She is currently the leader of the Game Design special interest group for the International Game Developers Association.

## **RAMATOULAYE DIALLO**

My name is Ramatoulaye Diallo and this is my second semester at Hostos Community College. My major is Liberal Arts and Science but I plan to do Nursing. I have my associate from back home but I have a story about Math. During my sixteen years of schooling, I didn't like math. When I came to the USA I changed my major which now is nursing. If in the past I thought that math wasn't required to my major, now I realize it is. Numbers are very important in nursing. For example, if I have to give a medication to a patient which says that: "Less than 10" and I give ten or more, I will be in trouble. This is why I took a step which is "yes I can do it" and I did it. Now I don't have any problem with Math and I really love it. Thank to my professor for her help and dedication. Thank you.

## **REGINALD DORCELY**

Reginald Dorcely has been teaching in mathematics department and coordinating STEM research Activities since 2010. He has completed his undergraduate in Mathematical Sciences and Biology form Medgar Evers College and graduate studies in Mathematics Education from City College. Professor Dorcely has mentored Hostos students in linear algebra research. Under his supervision, students have learned how to reduce dimensionality of large data and determine prominent response variables. His research students have presented their work in regional and national scientific conferences. Also, Professor Dorcely has the privilege to conduct a study in the field psychology education in collaboration with Dr. Lang from the Natural Sciences department. Professor Dorcely has co-authored a research paper, "Psychological Impact of Age on Learning" .

## **NANCY GENOVA**

Ms. Genova has over twenty-four years of public administration experience as health care administrator. She holds a Master's in Public Administration with a concentration in Health Care Administration from Long Island University and a B.A. in Social Work and Fine Arts from Lehman College. Ms. Genova is currently full time faculty at Hostos Community College in the Behavioral & Social Sciences Department's Public Policy & Administration Unit. Prior to that she developed the Bronx CAPC Initiative a nationally recognized model of care where she served as the director of the program at the same hospital for their Women's HIV Services. She has been involved with women's programs and been in the field of HIV/AIDS since 1993. She is considered a social activist by her peers, and has been acknowledged in a report issued by the NYS AIDS Advisory Council "Women In Peril HIV & AIDS The Rising Toll On Women of Color". She currently serves as President of the board to 100 Hispanic Women and is on the planning committee of their yearly Mind, Body, Spirit conference. She was appointed to the Human Rights Commission of Rockland County in April 2008 by the then county Executive Scott Vanderhoof. The play that she authored "The Death of a Dream" had its off-Broadway debut in October 2009 at Roy Arias Theater and received numerous media coverage. The show was on college tour from 2010-12 throughout the United States.

## **RAMON GOMEZ**

Ramon Gomez is a Full-Time Lecturer of Mathematics at the Mathematics Dept. of Hostos Community College and holds an A.A.S. a B.A., and a M.A in Mathematics.

for the Advancement of Teaching and the Council for Advancement and Support of Education. In 2015, the Bronx Times Reporter named her one of 25 Influential Women of the Bronx.

## **JAMES KENNIS**

Professor Kennis has earned over 300 college credits in his lifetime. As an undergraduate, he did a double-major in Chemistry and Mathematics and then he earned a Ph.D. in Mathematics Education from Columbia University. Outside of academia, he is a self-proclaimed expert in juggling (he can juggle 5), he worked as a beekeeper, and he also played professional blackjack for six years (lived in Vegas for 2 years). He has lived and worked in the Philippines (Peace Corps), Thailand (Khon Kaen University), and Afghanistan post-911 (Ministry of Education), and other countries as well. Recently, he has earned his "Amateur Extra" Amateur Radio certification (KD2MZL), and is also taking helicopter flying lessons. Lastly, he knows a thing-or-two about origami, Origamic Architecture, electronics, radios, circuits, drone flying, underground chemistry, raspberry pi, high energy materials, and model rocketry. He is very proud that he has never owned a television and still does not have a smart phone... he does, however, have three computers (with internet) at home!

## **MOISE KOFFI**

Dr. Moise Koffi received his PhD in Mechanical Engineering from the CUNY- Graduate Center in 2013 and currently works as an Assistant Professor in the Mathematics Department of Hostos Community College. Professor Koffi is also the Director of the Proyecto Access Program at Hostos where he has overseen the STEP and CSTEP grants for over 10 years. Dr Koffi's research focusses on the fluid dynamics in the vicinity of rotationally oscillating surfaces and heat transfer applications. Other research interests include STEM.

## **JUNG HANG LEE**

Dr. Jung Hang Lee earned his Ph.D. in Mathematics Education from Teachers College, Columbia University. He has B.S. in Computer Programming and Applied Mathematics (Operations Research), M.S. in Applied Mathematics (Engineering Mathematics) and M.A. in Mathematics Education. He is an Assistant Professor in the Mathematics De-

## **SARAH HOILAND**

Dr. Sarah L. Hoiland is an Assistant Professor of Sociology in the Behavioral and Social Sciences Department. She is currently the principal investigator of the Numeracy Infusion for College Educators (NICE) Project, a National Science Foundation (NSF)-sponsored project that trains faculty in best practices for embedding quantitative reasoning and quantitative literacy for CUNY in the Bronx faculty across the disciplines. Professor Hoiland is the chair of the Service-Learning and Civic Engagement Committee and Coordinator of Service-Learning and serves on several other Hostos committees.

## **BIAO JIANG**

Prof. Jiang received his Ph.D in Electrical Engineering from The City College of New York (2013). He spent 5 years as an adjunct faculty member at City College of New York, Brooklyn College and Hostos Community College teaching both Graduate and Undergraduate level courses, then moved to Hostos Community College as an Assistant Professor in 2014. Prof. Jiang's current work focuses on computer vision and robotics.

## **CYNTHIA JONES**

Cynthia Jones began her tenure at Hostos Community College in 1977 as an adjunct in the English Department teaching ESL reading courses of beginning, intermediate, and advanced levels. She was appointed as a full-time Lecturer in 1981 and has taught the full range of English course offerings such as Developmental Reading, Core English, Expository Writing, Literature & Composition, and an elective, Literature of the Black American. She particularly enjoys teaching developmental courses and the English elective. Cynthia Jones earned a Master of Arts in Curriculum and Teaching from Teachers College, Columbia University; and she received a Bachelor of Arts in Early Childhood-Elementary Education, Reading from Adelphi University. Professor Jones takes great pride that she was recognized as the *2014 New York Professor by the Carnegie Foundation*

partment at Hostos Community College since Fall 2018. Dr. Lee was an Associate Professor at Nyack College for seven years before he joined HCC. He has been teaching mathematics for over eighteen years. He was elected as the best analyst when he worked for National Security Agency (NSA), USA and Defense Security Association (DSA), South Korean Army. He was awarded as an emerging scholar of the year (2013) in Nyack College. He presented his research on North Korean Secondary School Mathematics at the 12th International Congress on Mathematical Education as an invited lecture. His main research interests are student motivation, mathematical concept map, assessment and North Korean mathematics education.

## **MANUEL LIVINGSTONE**

Manuel Livingston, M.S.Ed., is an Assistant Professor in the Allied Health Division. He holds a Masters in Higher Education from Walden University. His specialty is formulating lesson plans using andragogic principles, and applying them in course work relevant to radiologic and health sciences. Professor Livingston has also worked on assessment planning and program accreditation. He has been on the faculty at Hostos since 2014.

## **ANN MESTER**

Ann Mester is Associate Dean for Academic Affairs and is just completing her first year at Hostos. After completing her PhD Latin American anthropology and archaeology at the University of Illinois, she worked for ten years as a technical editor for a scientific association, then returned to academia where she worked as a dean in charge of curriculum development, general education, and programming for first-year students. Ann's work is informed by her commitment to education as a public good and her training as an anthropologist. Accordingly, much of her work has emphasized cultural literacy, international studies, and the development of critical thinking skills through courses that tackle real-world problems such as Environmental Sustainability and Social Justice, Global Public Health, and Deliberative Democracy and Social Action. Ann spent her undergraduate years at Fordham University back when the Bronx was burning and is thrilled to be back in the Bronx now, when our community is asserting its pride and burning brighter than ever.

## **DAISHA MARTINEZ**

My name is Daisha Martinez I am a proud Hostos Community College graduate. My journey began on January 17, 2017, when took the CUNY Placement Exams and faced my fear of not being “college ready.” To my surprise, I was ready. Given the fact that my roles in life as a wife and mother of two autistic children would always be my priority, I learned to manage time with a time schedule and to give my education space in my priority list. After realizing that a lot of the students at Hostos shared my situation and a common goal, my involvement in study groups and student clubs started. With the help and support of all the student resources available, staff, faculty and Adjunct faculty members, I became passionate about succeeding, and I thrive in college. In December 2018, I completed my last semester at Hostos Community College earning an Associates in Arts Degree and would be joining the 2019 Class for graduation commencement in May 2019. Recently, I transferred to Lehman College where I am pursuing a Bachelor in Science of Nursing Degree. One of my favorites quotes from E.M. De Hostos is: “Ideas are born, they struggle, triumph, change, and they are transformed; but is there a dead idea which in the end does not live on, transformed into a broader and clearer goal?”

## **SAUL MOREL**

Hello, my name is Saul Morel and this is my first semester at Hostos. My major is game design. How I feel about math is that it is challenging but practice makes perfect. I had a lot of experiences with math in CUNYStart have always be hard when it comes to test because in class learning it is easy but in test is when the pressure is active.

## **JUNO MORROW**

Juno Morrow is a multidisciplinary artist, independent game designer, photographer and educator living in Brooklyn, New York. They are an Assistant Professor of Game Design and Unit Coordinator at Eugenio María de Hostos Community College, City University of New York. They have been developing the first public game design degree program in New York there since 2015. Prior to that, Morrow earned an MFA in Design and Technology from Parsons School of Design. An internationally exhibiting artist and designer, Morrow has presented games and spoken at events like SXSW, GDC and MAGFest. With over 10 years

of experience as an award-winning photographer, they've had work featured in The Guardian, Dwell magazine and released 3 monographs of urban photography.

## NANA MUKBANIANI

Nana Mukbaniani is a PhD student in economics in Graduate Center, CUNY. She is working on her dissertation. Her thesis is about wealth distribution, inequality, and welfare. She is a quantitative reasoning fellow at Hostos Community College and assists professors to develop quantitative reasoning in their curriculum.

## TANVIR PRINCE

Dr. Tanvir Prince has a Ph.D. in Mathematics and is currently working as an Associate Professor of Mathematics at Hostos Community College, City University of New York. His main interest is “Topological Quantum Field Theory” and “Recreational Mathematics”. He has recently become very interested in Mathematics Education. He has presented at numerous international and national conferences. He is regularly publishing articles focusing both on pure mathematics and mathematics education. Dr. Prince is also currently collaborating on projects that aim to expose community college students to mathematical research early in their academic careers. He is regularly serving as a mentor for student research in CRSP and CSTEP Program. His other interests include traveling and cooking and playing with his 8 years old son.

## VANESSA PUJOLS

I am a Hostos alumni, a peer leader for Electric Circuits at Hostos, and a Junior in Civil Engineering at the Grove School of Engineering of the City University of New York. I decided to study Civil Engineering because of my passion for construction, I also aspire to some day have my own construction company. During my high school years, I didn't understand why I had to learn how to do all these math problems, I just saw them as challenges that boost my thinking. But as I get more in depth in my major and the understanding of complex engineering problems, I see the importance of knowing how to solve equations or algebraic problems.

## YOEL RODRIGUEZ

Dr. Yoel Rodríguez is a theoretical biophysicist and Professor of Physics and Chemistry in The City University of New York (CUNY)'s Hostos Community College. He is also a visiting professor of the Pharmacological Sciences Department at the Icahn School of Medicine at Mount Sinai (ISMMS). In addition, he is the Engineering Degree Program Coordinator. He received his B.S. degree in Physical Chemistry from Havana University, Cuba, and his Ph.D. in Theoretical Biophysics at the Complutense University of Madrid, Spain. Afterwards, he completed his postdoctoral training at ISMMS in Computational Biophysics. He has published several peer-reviewed research articles and presented at numerous conferences. Dr. Rodríguez's research is directed toward applying Computational Biophysics approaches to a better understanding of fundamental molecular mechanisms in biological processes with implications in cancer. He has received multiple educational and research grants from different agencies, including the National Institute of Health and National Science Foundation. Dr. Rodríguez has been the recipient of the prestigious Fulbright Scholar award in the 2016-2017 Academic Year. He has also been awarded the CUNY Chancellor's Research Fellowship in the 2015-2016 and 2018-2019 academic years. His mentees have earned multiple awards at undergraduate STEM conferences and several have continued to earn graduate degrees.

## ANCY SKARIA

Ancy Skaria is the Academic Program Specialist for the ASAP program. She holds a Bachelors and Masters degree in English from St. John's University, a Masters degree in Higher and Post-Secondary Education at Teachers College, Columbia University, and is a current PhD candidate in Urban Education with a specialization in Policy and Leadership from the CUNY Graduate Center. Although she was an English major, mathematics has been an extremely important tool in understanding education and the functioning of educational policy. She uses mathematics in her everyday job because of how data focused the ASAP program (and education in general) is. Her current studies utilize mathematics when doing longitudinal studies that focuses on data of student populations such as retention, and graduation.

## **EDME SOHO**

Dr. Soho is an assistant professor in the Mathematics Department. He is an applied mathematician with experience using and instructing others on the use of mathematical and computational modeling tools in multiple field. He enjoys collaborative, interdisciplinary research with professionals of diverse backgrounds. His primary research interests lie in mathematical modeling, dynamical systems, dynamics of infectious diseases, population dynamics, epidemiology and immunology.

## **ANDERS STACHELEK**

Dr. AJ Stachelek is an Assistant Professor of Mathematics at Hostos Community College, CUNY. He obtained his doctorate in Mathematics Education at Teachers College, Columbia University in 2014. Immediately following graduation, he obtained a position at Hostos Community College, with an emphasis on teaching at the developmental course level. With his experience of over fifteen years of teaching across various settings ranging from advanced mathematics and science public high schools to community colleges, he has gained a deep understanding of the importance of connecting to students and also recognizes the impacts educational systems themselves can have on student success.

## **KAREN M. STEINMAYER**

Professor Steinmayer is an Assistant Professor of Psychology in the Department of Behavioral and Social Sciences at Hostos Community College in the Bronx, NY. She holds a doctoral degree in Environmental Psychology and Health Psychology from the Graduate Center of the City University of New York. Her research on the social construction of embodied experience examined the narratives, discourses and practices through which embodied gender is constructed, including the places in which these interactions occur, and their relation to health. She has been conducting research in collaboration with the Dental Hygiene Program to investigate and address issues regarding pain and ethnic health disparities related to immigration, using this approach. She brings this research experience to her teaching, emphasizing the examination of gender, ethnicity and immigration on embodied experience and health. Her most recent research examines people's constructions of Place Identity in the global, postmodern world.

## **ALEXANDER VANINSKY**

Dr. Alexander Vaninsky is currently a Professor of Mathematics at Hostos Community College of the City University of New York. He received his master's degree in electrical engineering from the Moscow Power Engineering Institute, in mathematics - from Moscow State University, and Ph.D. and D. Sc. Degrees in mathematical economics - from Moscow Finance University. Author and co-author of five monographs and over 50 articles. Recipient of different grants and awards; among them - Stephen J. Shaw Award for Most Outstanding Paper (Irwin Publishing, USA) and Award for Outstanding Paper in Channels, Retail & Services (Southern Marketing Association of the USA). Teaches courses in Mathematics and Economics. Served as a Member of the Board of Directors and an advisor to government and private companies. Included in the Who's Who in America and Who's Who in the World. His current research focuses on the development and applications of new methods of environmental analysis including structured input - output models and data envelopment analysis with a perfect object.

## **ANTONIOS VARELAS**

Antonios Varelas is Associate Professor of Psychology in the Behavioral and Social Sciences Department at Hostos Community College of the City University of New York. He earned a B.A. in Psychology from Baruch College, New York, and a Ph.D. in Learning Processes from The Graduate Center at the City University of New York. His current research interests explore the impact of concept-formation protocols and clicker technology on learning in the undergraduate classroom.

## **KATE WOLFE**

Kate Wolfe is an Assistant Professor of Psychology in the Behavioral and Social Sciences Department at Hostos Community College, CUNY. Dr. Wolfe is a social psychologist with research interests in quantitative reasoning among urban community college students, common core standards as they impact college faculty, student perceptions of online learning, using iPads in teaching, and urban college student attitudes toward sexual minorities. She joined the planning committee for PRIME (Project for Relevant and Improved Mathematics Education), funded by the Teagle Foundation in 2015. She is the Principal Investigator for the ongoing *Hostos Online Learning Assessment* project that begin

in Fall 2015. She is Co-Investigator, along with Prof. Sarah Hoiland, for *Assessing Quantitative Literacy and Quantitative Reasoning in Diverse, Urban Community Colleges*, a project which began at Hostos in Spring 2015. Her publications related to quantitative reasoning are “Hostos Online Learning Assessment: A Survey of Student Perceptions” published in the Hispanic Educational Technology Services Online Journal in Spring 2016 and “*Measuring Numeracy in a Community College Context: Assessing the Reliability of the Subjective Numeracy Scale*” co-written with Prof. Sarah Hoiland. She has been a Visiting Scholar at Teachers College, Columbia University as a fellow of the Metropolitan Colleges Institute for Teaching Improvement, a program that focused on the nature of a liberal education at urban colleges.

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## LAUREN WOLF

Dr. Lauren Wolf received her AA in mathematics from Ulster Community College and continued her education at the State University of New York at Albany where she received a BA, MA and PhD in mathematics. Professor Wolf has been teaching for 14 years and while working on her PhD taught for seven years in prisons across New York. Dr. Wolf is Assistant Professor at Hostos Community College, where she teaches all levels of mathematics and trains undergraduate students in research. Her primary research interest is mathematical modeling combined with social justice. Professor Wolf is also working on reentry education in the STEM fields and is the founder of STEM-ucate Initiative for Reentry.

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## THE Office of Student Activities

The Office of Student Activities creates and promotes out-of-class experiences for students. Student Activities interacts closely with the members of more than 50 student organization assisting in the areas of leadership skills training and event programming. Our collaborative efforts also include working with the elected leaders of the Student Government Association to register clubs and manage the student electoral process.

Math Day 2019 Club Sponsors:

- ENGINEERING CLUB
- MATH CLUB

### CONTACT:

Jerry Rosa, Director  
450 Grand Concourse, C-371  
Bronx, NY 10451  
Phone: 718-518-6561  
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## HOSTOS STEM RESEARCH PROGRAMS

CUNY Research Scholars Program (**CRSP**) and other Science, Technology, Engineering, and Mathematics (STEM) programs at Hostos Community College focus on encouraging community college students' participation in authentic research and increase persistence in STEM disciplines. For this purpose, CRSP has been providing funded laboratory experiences for more than 25 Associate degree students majoring in STEM disciplines over a one-year period since 2014. CRSP students have been participating making oral and posters presentations throughout the country.

The Proyecto Access **CSTEP** Research Initiative (**PACRI**) is an intensive two (2) semester research experience with the objective of enhancing research skills of minority/underrepresented students pursing careers in STEM and license professions. Students are paired with a faculty mentor, attend research workshops and fieldtrips, and present their research topics at the CSTEP Statewide Conference and other research conferences and events.

### Former and Current CRSP/CSTEP Research Faculty Mentors

Dr. Tanvir Prince, Mathematics

Dr. Francisco Fernandez, Natural Sciences

Dr. Edme Soho, Mathematics

Dr. Chanh Phan, Natural Sciences

Dr. Moise Koffi, Mathematics

Dr. Debasish Roy, Natural Sciences

Dr. Lauren Wolf, Mathematics

Dr. Damaris-Lois Lang, Natural Sciences

Dr. Anders Stachelek, Mathematics

Dr. Yoel Rodriguez, Natural Sciences

Dr. Clara Nieto-Wire, Mathematics

Dr. Biao Jiang, Natural Sciences

Dr. Alexander Vaninsky, Mathematics

Dr. Allison Franzese, Natural Sciences

Dr. Anna Manukyan, Natural Sciences

### Contact Information:

Dean Felix Cardona, Office of the Academic Affairs Hostos Community College

For more information, please contact Prof. Dorcely at [rdoercely@hostos.cuny.edu](mailto:rdoercely@hostos.cuny.edu)- x6774



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