

# Jude Dzevela Kong

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## PERSONAL INFORMATION

Assistant Professor, Dalla Lana School of Public Health  
Assistant Professor, Department of Mathematics (cross-appointed)  
University of Toronto  
*E-mail:* jude.kong@utoronto.ca  
*Phone:*+1 416-978-3868  
*Website:* <https://aimmlab.org/>

### Profile:

I am an expert in mathematical modeling, artificial intelligence, data science, infectious disease modeling, and mathematics education. My primary research program focuses on developing and applying artificial intelligence, data science, and mathematics-based approaches to enhance decision-making in global health and planetary health. I currently lead an interdisciplinary team of over 160 researchers and policymakers spanning Africa, Asia, Latin America, the Caribbean, the Middle East, and North Africa. Our collaborative efforts aim to strengthen equitable and responsive public health systems that leverage Southern-led responsible AI solutions to improve prevention, preparedness, and response to emerging and re-emerging infectious disease outbreaks.

During the COVID-19 pandemic, I led a multidisciplinary team of over 52 researchers across nine African countries, utilizing artificial intelligence to assist governments and communities in controlling and managing the virus's spread. In 2020, I received the York Research Leader Award. In 2021, I was spotlighted among Canadian Innovation Research Leaders 2021 for my work with ACADIC. In 2022, I was recognized as a Change Maker by People of YU for my work in helping others learn mathematical concepts and encouraging them to find their passion and achieve more than they thought was possible. Additionally, in 2022, I won the Faculty of Science Early Career Researcher Award.

In 2023, I received the York Research Leader Award for the second time, and I was honored with York University's 2023 President's Emerging Research Leadership Award. I serve as an Area Editor of the Data & Policy Journal, where I focus on Data Technologies and Analytics for Policy and Governance. I also serve as an editor for the Royal Society Science Journal.

## EDUCATION

**PhD in Applied Mathematics** **September 2012-August, 2017.**  
*University of Alberta, Canada.*

**Graduate Certificate in Data Science** **earned on August 09, 2017.**  
*University of Alberta, Canada.*

**Master of Science in Mathematical Engineering** **September 2010-August 2012.**  
*Erasmus Mundus Joint Master's degree in Mathematical Modelling in Engineering(Mathmods): Theory, Numerics, Applications (University of L'Aquila-Italy and University of Hamburg-Germany).*

**Bachelor of Science in Mathematics** **October 2006-July 2009.**  
*(with a minor in Computer Science) University of Buea, Cameroon.*

**Bachelor of Education in Mathematics** **October 2003-July 2006.**  
*Advanced Teachers' Training College (Ecole Normale Supérieure), University of Yaounde 1, Cameroon.*

## RECOGNITIONS

1. York University's 2023 President's Emerging Research Leadership Award. 2023
2. York University 2023 Research Leader Award. 2023

3. York University 2022 Faculty of Science Early Career Researcher Award. 2022
4. Nominated for the 2022 Postdoctoral Supervisor of the Year Award. 2022
5. Recognized for enumerating positive change by inspiring Black students to aspire. <https://magazine.yorku.ca/issues/fall-2022/enumerating-positive-change/> 2022
6. Recognized as a York University Community Changemaker. <https://www.yorku.ca/positivechange/2022/02/18/jude-kong-faculty/> 2022
7. Recognized as Canadian Innovation Research Leader. <https://researchinfosource.com/pdf/CIL2021.pdf> 2021
8. Recognized as a Black Hero of Operational Research. (Received a certificate) <https://tinyurl.com/m6jfr5mv> 2021
9. 2020 York University Research Leader Award. (Received a present) <https://tinyurl.com/2x4jheya> 2020
10. The University of Alberta Faculty of Science Doctoral Dissertation Award. (Received a certificate) 2017
11. Josephine Mitchell academic award. (Received \$4000) 2016.
12. Queen Elizabeth II Graduate academic award. (Received \$7500) 2016.
13. PIMS graduate student training acceleration award. (Received \$10,447) 2016.
14. Josephine Mitchell Graduate student research award (GS4). (Received \$3500) 2016.
15. The University of Alberta 2015 Graduate Student Teaching Award. (Received a certificate) 2015.
16. Erasmus Mundus award. (Received 31, 000 euros) 2010-2012
17. Cameroon Head of State's academic excellence award. (Received 300,000 frs CFA) 2009.
18. The University of Buea Vice-Chancellor's Academic Excellent award. (Received 150000 frs CFA). 2008.

PI PROFILE

**Assistant Professor** **January 2024-present.**  
*Dalla Lana School of Public Health, University of Toronto, Canada.*

**Assistant Professor** **January 2024-present.**  
*Department of Mathematics (cross-appointed), University of Toronto Canada.*

**Executive Director** **August 2022-present.**  
*Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network (AI4PEP). Canada*

**Executive Director** **February 2020-present.**  
*Africa-Canada Artificial Intelligence and Data Innovation Consortium (ACADIC). Canada.*

**Executive Director** **May 2022-present.**  
*Resilience Research Atlantic Alliance on Sustainability, Supporting Recovery and Renewal (REASURE<sup>2</sup>). Canada.*

**Assistant Professor** **official: July 2019 (Effective: January 2020)-present.**  
*Department of Mathematics & Statistics, York University, Canada.*

**Regional Node Liaison** **March 2022-present.**  
*Regional Node Liaison to the steering committee of the Canadian Black Scientist Network (CBSN) Canada.*

**National Team leader** **March 2021-present.**  
*Early warning frameworks for emerging infectious disease outbreaks: Mathematics for Public Health (MfPH) team Canada.*

**National Team leader** **January 2020-present.**  
*Early warning frameworks for emerging infectious disease outbreaks: One Health Modelling Network for Emerging Infectious Diseases (OMNI) Canada.*

**Visiting Professor** **January 2020-present.**  
*Department of Ecology, Evolution, & Natural Resources, Rutgers University, US.*

**Post-Doctoral Fellow** **September 2017-December, 2019.**  
*Simon Levin-Princeton University*

**Secondary School Mathematics Teacher** **September 2006-August, 2010.**  
*Government Secondary School, Great Soppo-Buea, Cameroon.*

EMPLOYMENT  
HISTORY

**Assistant Professor** **January 2020-present.**  
*Department of Mathematics & Statistics, York University, Canada.*

**Postdoctoral Fellow** **September 2017-December 2019.**  
*Princeton University ( Ecology & Evolutionary Biology)& Rutgers University (Ecology Evolution & Natural Resources and DIMACS) US.*

**Tutor for ODE and PDE** **September 2015-December 2019**  
*Athabasca University Canada.*

**Teaching and Research Assistant** **September 2012-August 2017**  
*Department of Mathematics & Statistics, University of Alberta Canada.*

**Secondary School Mathematics Teacher** **September 2006-August 2010**  
*Government Secondary School-Great Soppo, Buea Cameroon*

RESEARCH FUNDING  
HISTORY

**PI, \$450,000, Global Affairs Canada (GAC), the Canadian International Development Scholarships 2030 (BCDI 2030) program** **January 2024- December 2028.**  
*Human Capacity Building in Climate Change and Health in Africa. Partner: Africa Institute of Mathematical Sciences (AIMS)*

**Co-Applicant \$24,150 SSHRC Subventions d'engagement partenarial individuelles** **February 2023- January 2024.**  
*Understanding the Relationship Between Gender-Based Violence and COVID-19 Pandemic to Enhance the Intervention of the Council on Health and the Academy of Medicine (COSAMED)*

**Co-Applicant \$600,000 IDRC Funding Call: Mobilizing Principles for Equitable Global Health Research** **January 2023- December 2025.**  
*Delivering on the promising of equitable global health research: positioning for use, ensuring legitimacy and changing systems*

**Co-Applicant \$1,374,720 NSERC Alliance Grants - Missions - Anthropogenic greenhouse gas research** **April 2023- February 2026.**  
*Predicting Methane Emissions from Alberta Oil Sands Territories Using a Holistic Model and Monitoring System*

**Co-applicant, \$450,000 York University Catalyzing Interdisciplinary Research Clusters (CIRC) program** **Jan 2022-December 2024.**  
Technologies for Identification and Control of Infectious Diseases (TICID).

**Co-applicant, \$200,000 York University Catalyzing Interdisciplinary Research Clusters (CIRC) program** **Jan 2022-December 2023.**  
Overcoming Epidemics: Transnational Black Communities' Response, Recovery and Resilience.

**Co-applicant, \$450,000 York University Catalyzing Interdisciplinary Research Clusters (CIRC) program** **Jan 2021-December 2023.**  
Disaster and Health Emergency Urban Systemic Risk Transformation Cluster.

**Co-Applicant \$480,000 CIHR Mpox (monkeypox) and zoonotic threats (2023-02-01) February 2023-January 2025.**  
Modelling, predicting and risk assessment of mpox (monkeypox) and other (re)emerging zoonotic threats to inform decision- making and public health actions: mathematical, geospatial and machine learning approaches.

**Co-Applicant \$563,244 NSERC Alliance Grants (ALLRP) December 2022- November 2026.**  
Advanced Mathematical Technologies for Respiratory Infection Risk Assessment and Pharmaceutical Intervention Scenario Analysis.

**PI, \$7,250,000 IDRC Pandemic and Epidemic Preparedness and Response grant August 2022-July 2027.**  
Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network" awarded by IDRC-

**PI, \$25,000 York University Black Research Seed Fund** **July 2022-Jue 2024.**  
Data portal for the Black Creek Community Health Centre.

**PI, \$250,000 New Frontiers in Research Fund - Exploration 2021** **May 2022-April 2024.**  
Novel Approaches to Sustainability, Governance, Climate Resilience, and Equity: supporting recovery and renewal in a post-pandemic world" awarded by NFRFE

**Co-applicant, \$75,000 York University Overcoming Epidemics in Black Communities Cluster seed funds** **Jan 2022-December 2024.**  
Overcoming Epidemics in Black Communities'.

**PI, \$115,000 NSERC Discovery** **April 2022-March 2027.**  
Modelling ecological dynamics in changing environments: novel theories, policy suggestions and operational tools for mitigating the impact of anthropogenic disturbances.

**PI, \$12,500 NSERC Discovery Launch Supplement** **April 2022-March 2023.**  
Modelling ecological dynamics in changing environments: novel theories, policy suggestions and operational tools for mitigating the impact of anthropogenic disturbances. " awarded by NSERC.

**Co-applicant, \$2.5M NSERC-EIDM grant** **March 2021-March 2023.**  
One Health Modelling Network for Emerging Infections " awarded by NSERC.

**Co-applicant, \$3M NSERC-EIDM grant** **March 2021-March 2023.**  
Mathematics for Public Health awarded by NSERC.

**Co-applicant, \$100,000 NRC PRCP grant** **March 2021-March 2023.**

<b>PI, \$1.25 M grant</b> “Predictive modelling and forecasting of the transmission of COVID-19 in Africa using Artificial Intelligence” awarded by IDRC.	<b>October 2020-October 2022.</b>
<b>PI, York University \$ 2000 Minor Research Grant</b>	<b>2020.</b>
PI, \$ 1,100 York University Junior Faculty Fund	<b>2020.</b>
PI, \$ 25,000 York University Faculty of Science Start-up Grant	<b>January 2020.</b>
<b>PI, NSERC \$ 90,000 Postdoctoral Fellowship</b>	<b>September 2017.</b>
<b>Josephine Mitchell academic award</b> \$ 4000.	<b>November 2016.</b>
<b>Graduate Students’ Association Academic Travel Award</b> \$ 500.	<b>November 2016.</b>
<b>Queen Elizabeth II Graduate academic award</b> \$ 7500.	<b>September 2016.</b>
<b>PIMS graduate student training acceleration award</b> \$10, 447.	<b>August 2016.</b>
<b>Josephine Mitchell Graduate student research award (GS4)</b> \$ 3500.	<b>April 2016.</b>
<b>The University of Alberta’s Faculty of Graduate Studies and Research Travel Award</b> \$ 2000.	<b>November 2015.</b>
<b>The University of Alberta 2015 Graduate Student Teaching Award</b>	<b>December 2015.</b>
<b>Erasmus Mundus award</b> 31000 €.	<b>September 2010-August 2012.</b>
<b>Cameroon Head of State’s academic excellence award</b> 300000 frs CFA.	<b>December 2009.</b>
<b>The University of Buea Vice-Chancellor’s award</b> for academic excellence 150000 frs CFA.	<b>December 2008.</b>

## ACTIVITIES

### STUDENT/POST-DOCTORAL SUPERVISION

**York University, Canada**

#### **A.) Postdocs**

- 1.) *Mahnaz Alavinejad.* **Current status:** Methodologist at Ontario Ministry of

- Health and Long Term Care** **June 2021- July 2022** (*full supervision*)
- 2.) *Wisdom Avusuglo* **Current status: Portfolio Modeller, CIBC bank** **June 2021- November 2022** (*full supervision*)
  - 3.) *Mbogning Fonkou Maxime Descartes* **July 2023- present** (*full supervision*)
  - 3.) *Ogbuokiri Blessing* **June 2021- present** (*full supervision*)
  - 4.) *Zahra Movvahhedinia* **June 2021-present** (*full supervision*)
  - 5.) *Qing Han* **June 2021-present** (*full supervision*)

**B.) Graduate Students**

- 1.) *Sherif Shuaib(Ph.D.)* **September 2021-present** (*full supervision*)
- 2.) *Noor Fatima (M.Sc., MITAC Global.)* **Current status: student July 2022-October 2022** (*full supervision*)
- 3.) *Lauren Farrell (M.Sc..)* **September 2023-present** (*full supervision*)
- 4.) *Ebenezer Adeniyi (M.Sc..)* **September 2023-present** (*full supervision*)

**C.) Undergraduate Students**

- 1) *Jared Wieclawek* **Current status: student.** **May 2022-August 2022** (*full supervision*)
- 2) *Cameron Arboine-Williams* **Current status: student.** **May 2022-August 2022** (*full supervision*)
- 3) *Haleema Ahmed* **Current status: student.** **May 2022-August 2022** (*full supervision*)
- 4) *Selin Tahir* **Current status: student.** **May 2022-August 2022** (*full supervision*)
- 5) *Kevin Hui* **Current status: student.** **May 2022-August 2022** (*full supervision*)
- 6) *Mehrdad Kazemi.* **Current status: student.** **September 2020-August 2022** (*full supervision*)
- 7) *Celina Duong.* **Current status: student.** **May 2021-August 2021** (*full supervision*)
- 8) *Mahakprit Kaur* **May 2021-December 2021; May 2022-August 2022** (*full supervision*)
- 9) *Taylor Cargill.* **Current status: student.** **May 2021-December 2021; May 2022-August 2022, May 2023-present** (*full supervision*)
- 10) *Jacqueline Duhon.* **Current status: student.** **May 2020-August 2020** (*full supervision*)
- 11) *Alyssa Duhon.* **Current status: student.** **May 2023-present** (*full supervision*)
- 12) *Ghislain Rutayisire* **Current status: student.** **May 2023-present** (*full supervision*)
- 13) *Barbod Habibi* **Current status: student.** **May 2023-August 2023** (*full supervision*)

**York University, Canada**

**May 23- June 23, 2022**

*Mentored the following students at an International Data Science Competition organized by STEM Fellowship in partnership with JMIR Publications, Roche, SAS, Canadian Science Publishing, Digital Science, Overleaf. Theme: "Health Economics". The students came 3rd out of more the 300 students around the world.*

**Project:** *Data Exploration and Classification of News Article Reliability: A Deep Learning Study*  
**Students:**

1. *Mahakprit Kaur-York University*
2. *Taylor Cargill -York University*

3. *Kevin Hui -York University*
4. *Minh Vu -York University*

**York University, Canada**

**May 01-31, 2020**

*Mentored the following students on a COVID-19 data science competition for the charity STEM Fellowship. **Project** Association between mental health cases and telehealth usage during COVID-19 : case study Ontario, Canada*

1. *Adam Farrow*
2. *Andrew Lieou*

**York University, Canada**

**May 01-31, 2021**

*Mentored the following students on a COVID-19 data science competition for the charity STEM Fellowship. **Project:** Data Exploration and Classification of News Article Reliability: A Deep Learning Study*

**Students:**

1. *Kevin Zhan-University of Alberta*
2. *Rafay Osmani-University of Alberta*
3. *Yutong Li-University of Alberta*
4. *Xiaoyu Wang-University of Alberta*

**Project:** *You've Reddit All: Popular COVID-19 Topics and Public Sentiment Trends in Vancouver, British Columbia*

**Students:**

1. *Cathy Yan-University of British Columbia*
2. *Melanie Law-University of British Columbia*
3. *Stephanie Nguyen-University of British Columbia*
4. *Janelle G. Cheung-University of British Columbia*

**Project:** *Machine learning-based predictive modelling of COVID-19 vaccination uptake within U.S. counties*

**Students:**

1. *Queena Cheong-University of British Columbia*
2. *Stephanie Quon-University of British Columbia*
3. *Katsy Concepcion-University of British Columbia*
4. *Martin Au-Yeung-University of British Columbia*

**Princeton University, USA**

**May 2019-August 2020**

*Co-supervised Hannah Burke undergrad thesis.*

## EDITORIAL ACTIVITIES

**Editor**

1. *Data & Policy*
2. *Editor-Royal Society Science*
3. *Editor-Big Data and Information Analytics*

**Jan 2022-**

**June 2021-**

4. *Visiting Editor- Bulletin of Mathematical Biology, Canadian Center for Disease Modelling Species Issue* **April 2021-**

#### **Reviewer**

1. *Canadian Medical Association Journal*
2. *Scientific Reports*
3. *Bulletin of Mathematical Biology*
4. *Journal of Mathematical Biology*
5. *PLOS Medicine*
6. *PLOS ONE*
7. *Royal Society Interface*
8. *Royal Society Open Science*
9. *Global Health*
10. *PNAS*
11. *Mathematical Biosciences*
12. *Science of Total Environment*
13. *Biological Dynamics*
14. *The Journal of Infectious Diseases (JID)*
15. *Infectious Disease Modelling (Infect. Dis. Model.)*
16. *SIAM Journal of Applied Mathematics*

#### **INTERNATIONAL COLLABORATION**

1. **Founder and Executive Director of Resilience Research Atlantic Alliance on Sustainability, Supporting Recovery and Renewal (REASURE<sup>2</sup>)** <https://reasure2.org>. *This network has 4 nodes: York University, Ontario, Canada; Queen's University, Ontario, Canada; Witwatersrand University, Johannesburg, South Africa; Institute of Technology – ITA, San Paolo, Brazil* **May 2022-present.**
2. **Founder and Executive Director of the Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network (AI4PEP)** <https://ai4pep.org/>. *This network has 16 hubs across 16 countries in the Global South: 4 in Africa, 4 in Asia, 4 in Latin America and the Caribbean and 4 in the Middle East and North Africa* **August 2022-present.**
3. **Member of the joint InterMaths-MathMods-RealMaths internal quality assessment board.** **January 2022-present.**
4. **York University representative of the International Double MSc. Degree Programme in Mathematics for Real World Applications (RealMaths)** <http://www.realmaths.eu>. *Members include: University of L'Aquila (Italy); University of Aveiro (Portugal); Karlstad University (Sweden); Brno University of Technology (Czech Republic); Gdańsk University of Technology (Poland); University of Silesia in Katowice (Poland); Ivan Franko National University of Lviv (Ukraine); Odessa National I.I. Mechnikov University (Ukraine); Taras Shevchenko National University of Kyiv (Ukraine); V.N. Karazin Kharkiv National University (Ukraine); Kwame Nkrumah University of Science and Technology (Ghana); National Institute for Mathematical Sciences (Ghana); and York University (Canada).* **May**



**2020-present.**

- 4. Founder and Executive Director of the Africa-Canada Artificial Intelligence and Data Innovation Consortium** [academic.org/](http://academic.org/). *ACADIC brings together an interdisciplinary team of data scientists, epidemiologists, physicists, mathematicians, software engineers, as well as disaster and emergency management, clinical public health, citizen science, and community engagement experts, coming from institutions and organization across 10 African countries: Botswana, Eswatini, Cameroon, Ghana, Mozambique, Namibia, Nigeria, Rwanda, South Africa and Zimbabwe.*  
**April 2020-present.**

*For international research collaboration (listed above), a significant component of the initiatives involves coordination and capacity building. We hold biweekly online meetings as well as annual workshops to share our progress, address challenges, exchange perspectives, and coordinate projects spanning multiple countries. In my role as the Executive Director, I provide overall leadership for the networks, collaborating with the Steering Committees of each network to execute their goals and priorities while ensuring progress is being made. My responsibilities include: Overseeing the activities of the Steering Committee to ensure effective coordination, efficiency, and integrity in achieving the network's objectives; Serving as the primary representative and spokesperson for the network, delegating this duty to the network manager as needed; Convening, chairing, and setting agendas for Steering Committee meetings; Collaborating with the Steering Committee to convene, set agendas for, and chair network meetings; Regularly updating the Steering Committee and the broader network on progress and activities.*

## COMMITTEE MEMBERSHIPS

- 1. Canadian Mathematics Society MITACS Innovation Lecture Committee (Chairperson) Canada** **2022-present.**
- 2. YUFA -Community Projects, York University** **2020- present.**
- 3 Competitions Committee (MCM/ICM), York University** **2020- present.**
- 4. High School Liaison and Recruiting Committee, York University** **2020- present.**
- 5. Industrial Outreach Committee, York University** **2020- present.**
- 6. Race Equity Caucus (REC) Committee, York University** **2020- present.**
- 7. Canadian Black Scientist Network (CBSN)Steering Committee Canada** **2020-present.**
- 8. Volunteers' Leader. International Student Services (ISS), University of Alberta** **2015-2016.**
- 9. Councillor-at Large. University of Alberta Graduate Students' Association University of Alberta** **2014-2016.**
- 10. International Student Advisory Council (ISAC). University of Alberta** **2014 -2015.**
- 11. Students Union President. Advanced Teacher's Training College Annex Bambili Cameroon** **2005-2006.**

## CONTRIBUTIONS

## Presentations

1. **Invited Speaker:** *I gave a talk on Harnessing the power of big data: AI-based framework and algorithms for disease outbreaks support at the Society for Epidemiological Research mid-year meeting in Toronto, Canada. Attended in-person.* **March 4-8, 2024.**
2. **Invited Panelist:** *I was a panelist at National Geographic "The Space Race Movie" pre-screen post movie discussion at the University of Toronto, Scarborough. Attended in-person.* **Feb 21, 2024.**
3. **Invited Panelist:** *I was a panelist at National Geographic "The Space Race Movie" pre-screen post movie discussion online.* **Feb 18, 2024.**
4. **Keynote Speaker:** *I gave a keynote talk on A disease outbreak detection and response tool supported by AI and a multi-source real-time data collection platform at the Technologies for Identification and Control of Infectious Diseases Meeting at York University. Attended in-person.* **February 14, 2024.**  
*A disease outbreak detection and response tool supported by AI and a multi-source real-time data collection platform*
5. **Keynote Speaker:** *I gave a keynote to over 700 Black High School Students from Durham Catholic District School Board at Denis O'Connor, inspiring them to think about Math in the right way and to excel in Maths! Attended in-person.* **February 13, 2024.**
6. **Keynote Speaker :** *I gave a plenary speech on Unpacking the complexities of artificial intelligence and its effect on the population at York University's Geography Department AI for Societal Good Conference. Attended in-person.* **February 02, 2024.**
7. **Keynote Speaker:** *I gave a plenary speech at the Canada-Africa Investment Symposium, Canada about Strengthening Canada - Africa Relations: Forging United Visions for the Future Amid Geographical Transformations. Attended in-person.* **February 10, 2024.**
8. **Invited Speaker:** *I gave a presentation on Leveraging Artificial Intelligence for Pandemic And Epidemic Preparedness and Response at the IDRC Artificial Intelligence for Development (AI4D) Meeting in Accra, Ghana. Collaborated on possible programs and project plans for the second phase of AI4D. Attended in-person.* **February 04-08, 2024.**
9. **Keynote Speaker :** *I gave a plenary speech on Unpacking the complexities of artificial intelligence and its effect on the population at York University's Geography Department AI for Societal Good Conference. Attended in-person.* **February 02, 2024.**
10. **Invited Speaker:** *I gave a plenary speech at the Joint Mathematics Meetings in San Francisco, US, about Phytoplankton competition for nutrients and light in a stratified lake. Attended in-person.* **January 03-07 2024.**
11. **Keynote Speaker:** *I gave a keynote presentation on Transforming diagnostics: the role of AI, robotic technology, and computer science at the African Society for Laboratory Medicine (ASLM) 2023 Conference in Cape Town, South Africa. Attended in-person.* **December 12-15, 2023.**
12. **Moderator:** *I organized and moderated the ASLM Family Feud and debate on AI & lab medicine at the African Society for Laboratory Medicine 2023 Conference in Cape Town, South Africa. Attended in-person.* **December 12-15, 2023.**
13. **Keynote Speaker:** *I gave a keynote presentation on Deciding Between Industry and Academia: Navigating Career Paths for Math Students and Securing a PhD Position to AIMS South Africa Students. Attended in-person.* **December 13, 2023.**
14. **Invited Speaker:** *I gave a keynote presentation on Deciding Between Industry and Academia: Navigating Career Paths for Math Students and Securing a PhD Position to AIMS South Africa Students. Attended in-person.* **December 13, 2023.**

15. **Invited Speaker:** *I gave a talk on “A disease outbreak detection and response tool supported by AI and a multi-source real-time data collection platform” at the 2023 Canadian Mathematical Society (CMS) Winter Meeting Montreal, Quebec. Attended in-person.* **December 1-4, 2023.**
16. **Invited Speaker:** *I gave a talk on “AI-Epidemix: A disease outbreak detection and response tool supported by AI and a multi-source real-time data collection platform” at the Surveillance Advances Seminar series. Organized by Public Health Agency of Canada (PHAC)’s Data, Surveillance and Foresight Branch (DSFB) & National Collaborating Centre for Infectious Diseases (NCCID). Attended virtually.* **November 28, 2023.**
17. **Keynote Speaker:** *I gave a Keynote talk on ”Unpacking the complexity of AI” to High School students at the Leadership by Design 2023 Symposium. Attended in-person.* **November 28, 2023.**
18. **Keynote Speaker:** *I gave a Keynote talk on “’Leveraging Artificial Intelligence for Mental Health’ at the University of San Agustin, Philippines AI4PEP hub project launch. Attended virtually.* **November 27, 2023.**
19. **Keynote Speaker:** *I gave a Keynote talk on “AI-Powered Higher Education: Transforming Teaching and Learning” at Sunway University, Centre for Higher Education Research Seminar Series. Attended virtually.* **November 23, 2023.**
20. **Keynote Speaker:** *I gave a Keynote talk on “the applications of AI in healthcare diagnosis, treatment, and decision-making” in Nigeria at the Digital Health Africa Student BootCamp 2023 . Attended virtually.* **November 19, 2023.**
21. **Invited Speaker:** *I gave a Keynote talk on “the applications of AI in healthcare diagnosis, treatment, and decision-making” in Nigeria at the Digital Health Africa Student BootCamp 2023 . Attended virtually.* **November 19, 2023.**
22. **Invited Speaker:** *I gave a presentation on Leveraging Artificial Intelligence for Pandemic And Epidemic Preparedness and Response at the IDRC Artificial Intelligence for Global Health (AI4GH) Meeting in Nairobi, Kenya. Collaborated on AI4GH organizational structure, governance, activities, programs. Attended in-person.* **November 12-17, 2023.**
23. **Keynote Speaker:** *I gave a Keynote talk on “AI-powered, climate-responsive, and user-friendly platform, enabling disease prediction and management” at the Cameroon 2023 One Health Conference. Attended in-person.* **November 07-10, 2023.**
24. **Invited Speaker:** *I gave a talk on ”A Gender-Transformative, AI-Enhanced, Community-Oriented Early Warning, Alert and Response System for Disease Outbreaks” at the 6th SIAM Texas-Louisiana Sectional Meeting, University of Louisiana at Lafayette. Attended in-person.* **November 03-05, 2023.**
25. **Invited Speaker:** *I gave a talk on ”Responsible AI Solutions from the Global South: Better Health and Stronger Health Systems” at the International Development Research Centre (IDRC) Global Health meeting. Attended in-person.* **October 20, 2023.**
26. **Invited Speaker:** *I gave a talk on “Global South AI4PEP Network (AI4PEP) network” at the Verena Institute, Georgetown University. Attended in-person.* **October 07, 2023.**
27. **Invited Speaker:** *I gave a presentation on the project that my team and I are doing in Thailand on the visit of Mahidol University leaders to York university. Attended in-person.* **September 06, 2023.**
28. **Keynote Speaker:** *I gave a keynote at York University, graduate students MeetUp. Attended in-person.* **August 30, 2023.**
29. **Keynote Speaker:** *I gave a plenary speech at the launch of the Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network Project Launch in Senegal. Attended virtually-Zoom* **August 29, 2023.**

30. **Invited Speaker:** *I gave a presentation on the project that my team and I are doing in Uganda at the visit of Makerere University, leaders to York University. Attended in-person. July 23, 2023.*
31. **Invited Speaker:** *I gave a presentation at the WHO Pandemic & Epidemic Intelligence Innovation Forum in Berlin about the Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network. Attended virtually-Zoom. July 20, 2023.*
32. **Keynote Speaker:** *I gave a keynote presentation at the AI4PH summer school 2023, on AI-based framework and algorithms for achieving SDG3 and SDG5 in the Global South. Attended in-person. July 17-21, 2023.*
33. **Invited Speaker:** *I attended the Modelling Workshop in Infectious Diseases Lyon, and gave a talk on "Towards an Early Warning System for disease outbreaks in Africa." Took part in several panel discussions on lessons learnt from countries and use cases of early warning systems. Attended in-person. July 12-13, 2023.*
34. **Invited Speaker:** *I attended the Canada-Africa Economic Cooperation Strategy (CA-ECS) Seminar & Reception and gave a talk about the Africa-Canada Artificial Intelligence and Data Innovation Initiatives in Africa. Attended in-person. July 05, 2023.*
35. **Invited Speaker:** *I presented the results of the project I have been doing at Jane and Finch community in partnership with Black Creek Community Health Center entitled: Pandemic lessons for rapid adaptive community-based crisis response: metrics, institutions, networks, models, and systemic synergies in the Northwest Toronto community known as Jane and Finch to the community. Attended in-person. June 22.*
36. **Invited Speaker:** *I gave a talk to the Public Health Association of BC Summer Institute on the impact of responsible local and explainable AI on communities. Attended virtually-Zoom. June 22, 2023.*
37. **Invited Speaker:** *I attended AESIS's 11th annual conference on Societal Impact of Science and gave a presentation on the impact of our AI models on communities across Africa. (<https://aesisnet.com/events/ios23.html>). Attended in-person. June 19-21, 2023.*
38. **Invited Speaker:** *I attended IndabaX Cameroon 2023 conference and gave a talk on "Leveraging Responsible, Explainable, & Local AI for Population Health & Health Systems" (<https://deeplearningindaba.com/2023/indabax/cameroon/>). Attended virtually-Zoom. June 19-20, 2023.*
39. **Invited Speaker:** *I was invited to give a talk on leveraging AI to help our government and our communities during the visit of Minister Michael S. Kerzner and his team to York University. Attended in-person. June 13, 2023.*
40. **Invited Speaker:** *I attended the Canadian Mathematics Society Summer and gave a talk at a session I co-organize on "Dynamics of a cholera transmission model: from Microscopic Cycles to Macroscopic Cycles" (<https://cmssmc.wixsite.com/summer23/>). Attended in-person. June 02-05, 2023.*
41. **Plenary Speaker:** *I gave a plenary talk at the Canadian Mathematics Society Summer meeting on: "How mathematics can save lives: mathematical modeling to support infectious disease-based decision-making. Attended in-person. June 02-05, 2023.*
42. **Invited Speaker:** *I attended the Computational and Mathematical Population Dynamics 6 (CMPD6) conference in Winnipeg and gave two talks: first on Mpox dynamic model: incorporating adaptive behavioral changes, different control strategies in the MSM community and under-reporting and the second one on Leveraging mathematical models to support early management of an emerging disease outbreak: the case of Covid-19 and Africa. Attended in-person. (<https://cmpd6.github.io>). May 23-27, 2023.*

43. **Invited Speaker:** *I attended DIMACS Workshop on Algorithm and Mechanism Design for Achieving the UN SDGs and gave a talk on AI-based frameworks and algorithms for achieving SDG3 and SDG5 in the Global South (<http://dimacs.rutgers.edu/events/details?eID=2394>). Attended in-person.* **May 15-17, 2023.**
44. **Invited Speaker:** *I gave a talk at the Next Einstein Forum Webinar series on leveraging responsible artificial intelligence methods for population health and health systems. Attended virtually-Zoom.* **April 18, 2023.**
45. **Invited Speaker:** *I gave a presentation to South African University leaders (during their visit to York University) on the work that we have been doing in South Africa: mobilizing AI to build equitable, resilient governance strategies & increase societal preparedness for future global pandemics and climate disasters. Attended in-person.* **April 24, 2023.**
46. **Invited Speaker:** *I was invited to talk about how we can leverage AI to assist the Governor of Kajiado, Kenya (during his visit to York University) in his agenda for the Maasai people of Kenya (vulnerable community): in particular SDG 2 ("Zero hunger"); SDG 3 ("Good Health and Well-being"), SDG 4 ("Quality Education"), SDG 5 ("gender equality"), SDG 6 ("Clean Water and Sanitation"), SDG 11 ("Sustainable cities and communities"). Attended in-person.* **March 23, 2023.**
47. **Invited Speaker:** *I attended and gave a talk on Leveraging Responsible AI for Population Health & Health Systems in Nigeria at the Nigeria Computer Society, Artificial Intelligence & Robotics Conference: <https://lnkd.in/g4HwZGti>. Attended virtually-Zoom.* **March 21-23, 2023.**
48. **Invited Speaker:** *I attended the American Mathematical Society Southeastern Sectional Meeting at Georgia Institute of Technology, Atlanta Georgia and gave a talk on Mpx dynamic model: incorporating adaptive behavioural changes, different control strategies in the MSM community & under-reporting. Attended in-person.* **March 18-20, 2023.**
49. **Invited Speaker:** *I gave a talk at the Biology Department, McGill University on a model for forecasting the distribution of range-shifting species and the Approximate Bayesian Computation (ABC) to jointly estimate thermal envelopes, population growth rates, and dispersal parameters. Attended in-person.* **March 17, 2023.**
50. **Invited Speaker:** *I gave a guest talk on Leveraging Responsible AI for Population Health & Health Systems at Queens University. Attended in-person.* **March 07, 2023.**
51. **Invited Speaker:** *I gave a Black History Month presentation at Michael Garron Hospital on Canadian Black Scientists and the Key to Leveraging Responsible Data Science Methods for Population Health & Health Systems. (<https://www.tehn.ca/about-us/newsroom/mgh-inclusion-alliance-hosts-2023-speaker-event-series-black-history-month>). Attended in-person.* **Feb. 28, 2023.**
52. **Invited Speaker:** *I gave a presentation about the gateway to resilience in math: the creation of micro tutoring communities for our kids at a Black history month celebration in the Apostolic Pentecostal Church, Pickering. Attended in-person. <https://youtu.be/8Xa4bEppq4Yc>.* **Feb. 26, 2023.**
53. **Panellist :** *I was a panellist at a Black History panel on A Black Students' Guide to Career organized by Black students at York University. Attended in-person.* **Feb. 18, 2023.**
54. **Invited Speaker:** *I gave guest lecture at the Dalla Lana School of Public Health on Leveraging Responsible, Explainable, and Local Data Science Methods for Population Health & Health Systems. Attended in-person.* **Feb. 07, 2023.**
55. **Invited Speaker:** *I gave a talk at the Canadian Black Scientists Network BE-STEMM 2023 Conference. My talk was entitled "The era of the mathematician is here: What we need to do as a community for our children to be competitive in the future job market." Attended virtually-zoom.* **Feb. 03, 2023.**

56. **Invited Speaker (Ask A Mathematician):** gave a talk to grades 7 and 8 students in St Joseph Catholic School Toronto on How Mathematics Can Save Lives. Attended virtually-zoom. **Jan. 31, 2023.**
57. **Keynote Speaker:** I co-organized a workshop at the Fields Institute on Early Warning Systems (EWS) for Emerging and Re-emerging Diseases and gave a talk on EWS for re-emerging diseases. <http://www.fields.utoronto.ca/activities/22-23/early-warning-workshop>. Attended in person. **Jan. 23-25, 2023.**
58. **Invited Speaker:** I attended the Joint Mathematics Meetings in Boston and gave a talk entitled: “adaptive changes in sexual behaviour in the high-risk population in response to mpor can control the outbreak: insights from an epidemic model.” Attended in person. **Jan. 04-07, 2023.**
59. **Panellist :** I organized and took part in a panel discussion on “Towards an Inclusive Data Governance Policy for the use of AI in Africa” at the Data for Policy Conference at the Evans School of Public Policy and Governance, University of Washington. <https://members.dataforpolicy.org/2022-conference/seattle-programme/>. Attended in person. **Dec. 10, 2022.**
60. **Invited panellist :** I was invited to two-panel conversations at the Bill & Melinda Gates Foundation in Seattle: 1) Ethics and Efficacy of modelling and machine learning, 2) The politics of data. December 09, 2022. <https://members.dataforpolicy.org/2022-conference/seattle-programme/>. Attended in person. **Dec. 10, 2022.**
61. **Invited Speaker:** I gave a talk at the Canadian Mathematical Society winter meeting on “Adaptive changes in sexual behavior in the high-risk population in response monkeypox can control the outbreak: insights from an epidemic model”. Attended in person. **December 04, 2022.**
62. **Chair:** I chaired the public Mitacs Lecture at the Canadian Mathematical Society winter meeting. Attended in person. **December 02, 2022.**
63. **Keynote Speaker:** I gave a keynote presentation at the New York University Abu Dhabi Global Perspectives in Science Lecture Series. Title of my talk: Leveraging AI for Clinical Public and Global health Needs: Implications for Policies and Lessons Learned from the ACADIC project. Attended in person. **Nov 28, 2022.**
64. **Invited Speaker:** I gave a presentation at the China-Canada Symposium On Modelling, Prevention and Control of Zoonoses. Title of my talk: “Leveraging Artificial Intelligence for Clinical Public Health in the Global South ”. Attended virtually-zoom. **Nov 15, 2022.**
65. **Keynote Speaker:** I gave a presentation at the Ghanian Mathematical Biology and Medicine Workshop. Title of my talk: “Leveraging Artificial Intelligence for Clinical Public Health in Africa”. Attended virtually-zoom. **Nov 08, 2022.**
66. **Invited Speaker:** I gave a presentation at the University of Massachusetts Mathematical Biology Seminar series. Title of my talk: “Leveraging Artificial Intelligence for Clinical Public Health in the Global South”. Attended virtually-zoom. **October 31, 2022.**
67. **Keynote Speaker:** I was a keynote speaker at the Science Atlantic Conference 2022, that held at Mount Alison University, Sackville, NB . Attended in person. **Oct. 14-15, 2022.**
68. **Invited Speaker:** During the deputy Minister of Higher Education, Science and Innovation (South Africa), the Hon. Buti Manamela visit to York University, I presented our initiatives in South Africa: Leveraging Artificial Intelligence and Big Data for clinical public health in South Africa. Attended in person. **September 14, 2022.**
69. **Invited Speaker:** I gave a presentation at the MfPH next generation Lecture Series. Title of my talk: “Estimation of COVID-19 ascertainment rates across Africa and drivers of transmission dynamics worldwide in the early stage”. Attended virtually-zoom. **August 17, 2022.**

70. **Keynote Speaker:** *I was a keynote speaker at the Queen's University, Workshop on Mathematical Ecology (<https://mast.queensu.ca/math-ecology/>). Attended in person. Title of talk: "Estimation of COVID-19 ascertainment rates across Africa and drivers of transmission dynamics worldwide in the early stage".* **August 10-11, 2022.**
71. **Keynote Speaker:** *I was a keynote speaker at the Black In Mathematics Association workshop on grant writing and access . Attended virtually-zoom.* **July 13, 2022.**
72. **Keynote Speaker:** *I was a keynote speaker at the AYA Mentoring and Tutoring Program Summer 2022 Meeting. Attended in person.* **July 11, 2022.**
73. **Panelist:** *I was a panellist on a panel discussion on "Breaking barriers in stem and building bridges with Africa!" at the Nobellum "Innovathon 2022". attended in person.* **July 9, 2022**
74. **Invited Speaker:** *I gave a presentation at the Applied and Industrial Mathematics Society Annual Meeting 2022 in UBC-Okanagan. Title: "Estimation of epidemiological parameters and ascertainment rate from early transmission of COVID-19 Across Africa". Attended in person.* **June 15 , 2022**
75. **Invited Speaker.** *I gave a presentation at the Dynamical systems and applications session of Canadian Mathematics Society 2022 Meeting held at Memorial University of Newfoundland and Labrador. Title: "The Phytoplankton competition for nutrients and light in a stratified lake: a mathematical model connecting epilimnion and hypolimnion". Attended in person.* **June 5 , 2022**
76. **Keynote Speaker:** *I was a keynote speaker at the South African Council for Scientific and Industrial Research (CSIR), Africa-Canada Artificial Intelligence and Data Innovation Consortium (ACADIC) and the University of Pretoria I organized a collaborative workshop on big data analysis of covid-19. Attended virtually-Zoom.* **May 30 , 2022**
77. **Keynote Speaker:** *I was a keynote speaker at the Blacks in Mathematics International Conference where I gave a presentation on Careers and Scholarships in Mathematics. Attended virtually-zoom.* **April 23 , 2022.**
78. **Invited Speaker:** *I attended BIRS on Systems with rate-induced transitions and gave a talk on rate-induced transitions in phytoplankton systems. Attended virtually-zoom.* **March 28-19 , 2022.**
79. **Keynote Speaker:** *I gave a keynote talk on "Estimating and Predicting Greenhouse gas emissions from tailing ponds!" at the University of Alberta Sustainability Council lecture series. Attended virtually-zoom.* **March 30 , 2022.**
80. **Keynote Speaker:** *I gave a keynote talk on "Inspiring Diversity in STEM" at the Diversity in STEM Conference at Western University, Canada. Attended virtually-zoom.* **March 13 , 2022.**
81. **Panelist:** *I was a panellist on a panel discussion on " How to Inspire Diversity in STEM." at the Diversity in STEM Conference at Western University, Canada. attended virtually-zoom.* **March 13 , 2022**
82. **Moderator.** *I moderated a panel conversation on Careers in Mathematical modelling at York University. Driving discussion between colleagues from the industry and students on careers in mathematical modelling, and what employees look for when hiring mathematicians. Attended virtually-zoom.* **March 11, 2022 .**
83. **Keynote Speaker.** *I gave a keynote talk to more than 1000 middle and high school students across Canada on the principles of mathematical modelling. Attended virtually-zoom.* **March 08, 2022.**

84. **Keynote Speaker:** *I gave a keynote talk on “The Principles of Mathematical Modelling ” at the University of Toronto, St George Branch STEM Fellowship Workshop. Attended virtually-zoom.* **March 02 , 2022**
85. **Moderator.** *I moderated a panel conversation on STEM and Black Wellness in Canada at a conference that I organized on “STEM and Black Wellness in Canada”. Attended virtually-zoom.* **February 28, 2022.**
86. **Invited Speaker.** *I gave a presentation in the Mathematics Department, University of Alberta entitled: “comparing public sentiments toward COVID-19 vaccines across Canadian cities: analysis of comments on Reddit”. Attended virtually-zoom.* **February 14 , 2022**
87. **Moderator.** *I moderated a panel conversation at a conference that I organized on Discovering COVID-19 Inequalities and Systemic Vulnerabilities: the role of Artificial Intelligence. Attended virtually-zoom.* **Feb 03, 2022.**
88. **Moderator.** *I moderated a panel Session at the BE-STEMM 2022 conference on Building Micro-Mentorship Communities for Black Students across Canadian Universities’. Attended virtually-zoom.* **February 01, 2022.**
89. **Keynote Speaker:** *I gave a keynote talk on “How Mathematicians Model Infectious Diseases ” at the Black Excellence in Science, Technology, Engineering, Mathematics & Medicine/Health (BE-STEMM 2022) conference in Canada. Attended virtually-zoom* **January 31 , 2022**
90. **Keynote Speaker:** *I gave a keynote talk on the impact of social economics and environmental factors on the dynamics of COVID-19 at the Artificial Intelligence for Pandemics Centered, University of Queensland, Australia. Attended virtually-zoom.* **January 19 , 2022.**
91. **Keynote Speaker.** *I gave a keynote talk to Spirit of Math middle and high school students across Canada on How do we design a mathematical model of an infectious disease outbreak. Attended virtually-zoom.* **January 08, 2022.**
92. **Keynote Speaker.** *I gave a keynote talk to High School students across Peel District School Board, on inspiring students to think about mathematics in the right way. Attended virtually-zoom.* **December 07, 2021.**
93. **Panelist.** *Panelist at the second Nigerian Stakeholder forum on a Pan-Nigerian strategy and policies for AI. Attended virtually-zoom.* **November 30, 2021.**
94. **Invited Speaker.** *I gave a presentation to grade 9 students at Bell High School, Ottawa-Carleton District School Board aimed at inspiring students to think about mathematics in the right way. This is under the Ask a Mathematician program organized by the Field Institute. Attended virtually-zoom.* **November 23, 2021.**
95. **Invited Speaker.** *I gave a presentation to grade 8 students at St. Andrew Elementary School, Oakville today. The main objective is to inspire students to think about mathematics in the right way. This is under the Ask a Mathematician program organized by the Fields Institute. Attended virtually-zoom.* **November 09, 2021.**
96. **Panelist.** *I was a panellist at a virtual hackathon on emerging technologies hosted by Brain-STEM Alliance. Attended virtually-zoom.* **November 07, 2021.**
97. **Invited Speaker.** *Canadian Centre for Disease Modelling 2021 China-Canada Symposium on Modelling, Prevention and Control of Infectious Diseases. Talk title: The impact of social, economic, environmental factors and public health measures on the dynamics of COVID-19. Attended virtually-zoom.* **September 16, 2021.**



98. **Panelist.** *Canadian Centre for Disease Modelling 2021 China-Canada Symposium on Modelling, Prevention and Control of Infectious Diseases. Attended virtually-zoom. September 17, 2021.*
99. **Panelist.** *Artificial Intelligence Virtual Stakeholders Forums: A Rights-Respecting Artificial Intelligence Policy for Nigeria. Attended virtually-zoom. October 20, 2021.*
100. **Invited Speaker.** *Mathematics for Public Health Colloquium <http://www.fields.utoronto.ca/activities/21-22/public-health-colloquium>. Talk title: Early Warning Tools for Emerging Infectious Diseases Outbreak. Attended virtually-zoom. October 12, 2021.*
101. **Plenary Speaker.** *Ghana Science Association 2021 Conference <https://www.ghanascience.org.gh>. Theme: Mitigating COVID-19 Pandemic. Talk title: The power of Collaboration, Artificial Intelligence & Big Data in the Fight Against COVID-19 in Africa. Attended virtually-zoom. October 07, 2021.*
102. **Invited Speaker** *Black Heroes of Mathematics 2021 conference <https://www.lms.ac.uk/events/black-heroes-mathematics>. Talk title: Harnessing Artificial Intelligence and Big Data Techniques to Monitor Manage and Forecast an Epidemic: the Case of COVID-19. Attended virtually-zoom. October 05, 2021.*
103. **Panelist.** *Black Heroes of Mathematics 2021 conference <https://www.lms.ac.uk/events/black-heroes-mathematics>. Panel conversation on increasing the number of Blacks in research and STEMM programs . Attended virtually-zoom. September 13, 2021.*
104. **Invited Speaker** *Data for policy 2021 conference: lessons for policy-data interactions after COVID-19 <https://dataforpolicy.org>. Attended virtually-zoom. September 13, 2021.*
105. **Panelist.** *Data for policy 2021 Conference: lessons for policy-data interactions after COVID-19 <https://dataforpolicy.org>. Attended virtually-zoom. September 14, 2021. Data for Policy is a premier global forum for interdisciplinary and cross-sector discussions around the impact and potentials of the digital revolution in the government sector. I equally gave a presentation in this conference. Attended virtually-zoom. September 14, 2021.*
106. **Panelist.** *Fields Institute Webinar on Let's Talk About Grad School: Special panelists representing Canada, Europe and the USA will provide insight and advice about applying to mathematics graduate school programs. Attended virtually-zoom. August 27, 2021.*
107. **Invited Speaker.** *Several presentations to elementary and high school students on the applications of Elementary School, Junior High School and High School Mathematics in real life (organized by the Fields Institute). Attended virtually-zoom. Every week since 2020*
108. **Plenary Speaker.** *Red Raider Mini-Symposium. Phytoplankton competition for nutrients and light in a stratified lake: a mathematical model connecting epilimnion and hypolimnion. Attended virtually-zoom. August 20, 2021.*
109. **Invited Speaker.** *Earth Observatory of Singapore and Nanyang Technological University-Singapore semianr series. The impact of social, economic, environmental factors and public health measures on the dynamics of COVID-19. Attended virtually-zoom. August 17, 2021.*
110. **Invited Speaker.** *University of British Columbia Mathematical Biology Lecture series. The impact of social, economic, environmental factors and public health measures on the dynamics of COVID-19. Attended virtually-zoom. June 02, 2021.*
111. **Panelist.** *African Institute of Mathematical Sciences( AIMS), South Africa. Panelist at a webinar on Challenging realities experienced by Mathematical graduates and career opportunities. Attended virtually-zoom. April 22, 2021.*

112. **Panelist.** *Dalhousie University. Panelist at a webinar on Black Excellence in STEM and Health Research Symposium. Attended virtually-zoom.* **March 27, 2021.**
113. **Panelist.** *York Circle. Panelist at a webinar on racism during the pandemic. Attended virtually-zoom.* **February 28, 2021.**
114. **Invited Speaker.** *York University. Scholars' Hub talk on solutions to overcome math anxiety. Attended virtually-zoom.* **February 17, 2021.**
115. **Panelist.** *York University. Panelist at York University's Symposium on Building Momentum for Transformative Disaster Risk Governance. Attended virtually-zoom.* **February 12, 2021.**
116. **Invited Speaker.** *Dahdaleh Institute for Global Health Research. Presentation on our IDRC project on predictive modeling and forecasting the transmission of COVID-19 in Africa using Artificial Intelligence. Attended virtually-zoom.* **January 27, 2021.**
117. **Invited Speaker.** *Trent University Mathematics Lecture series on Cost and social distancing dynamics in a mathematical model of COVID-19 with application to Ontario, Canada. Attended virtually-zoom.* **November 23, 2020.**
118. **Invited Speaker.** *University of Alberta Mathematical Biology Lecture series. The impact of social, demographic and climatic variable on the growth rate of COVID-19 across countries. Attended virtually-zoom.* **November 16, 2020.**
119. **Invited Speaker.** *SIAM LS 20 Minisymposium: Mathematics of Infectious Diseases and our Planet. Attended virtually-zoom.* **June 30, 2020.**
120. **Invited Speaker.** *Special Seminar talk on Indirectly Transmitted Infectious Diseases. At Arizona State University. Attended in-person.* **April 12, 2019.**
121. **Invited Speaker.** *Special Seminar talk on Modelling Microbial Dynamics: Effects on Environmental Health at The College of William and Mary. At The College of William and Mary. Attended in-person.* **March 29, 2019.**
122. **Invited Speaker.** *he inverse method for a childhood infectious disease model with its application to pre-vaccination and post-vaccination measles data. "Mathematical Investigations of Spatial Ecology and Epidemiology" at the Joint Mathematics Meeting in Baltimore. Attended in-person.* **January 16-19, 2019.**
123. **Invited Speaker.** *A stoichiometric organic matter decomposition model in a chemostat culture. The Sixth G. J. Butler International Conference on Differential Equations and Population Biology at the University of Alberta* **July 23-27, 2018. Attended in-person.**
124. **Invited Speaker.** *Dynamics of a cholera transmission model with immunological threshold and natural phage control in reservoir. MBI Workshop on Population Models the 21st Century at the Ohio State University. Attended in-person.* **November 14-18, 2016.**
125. **Invited Speaker.** *A stoichiometric organic matter decomposition model. First conference on biological stoichiometry at Trent University and gave a poster presentation. Attended in-person.* **June 23-26, 2015.**
126. **Invited Speaker.** *Indirectly transmitted infectious disease: from microscopic to Macroscopic cycles. BIRS Workshop 13w5151: Current Challenges for Mathematical Modelling of Cyclic Populations. Attended in-person.* **November 10 to November 15, 2013.**
127. **Invited Speaker.** *DDE models of the glucose-insulin system: A useful tool for the artificial pancreas. The PIMS International Graduate Training Centre (IGTC) Submit at Naramata. Attended in-person.* **October 12-14.**

## Events that I organized

1. **Canadian Black Scientist Network (CBSN) Ontario:** *I organized and chaired the Canadian Black Scientists Network-Ontario node launch meeting. Attended in-person.* **June, 2024.**
2. **Kong Research Lab, Undergrad Conference 2023:** *I organized Kong Research Lab summer undergraduate conference 2023. Attended in-person.* **September 06, 2023.**
3. **York University, graduate student MeetUp:** *I organized York University, graduate student MeetUp. Attended in-person.* **August 30, 2023.**
4. **Canadian Black Scientist Network (CBSN) Ontario:** *I organized and chaired the Canadian Black Scientists Network-Ontario node launch meeting. Attended virtually-Zoom.* **June 14, 2023.**
5. **Black in Mathematics, York University Panel Discussion :** *I organized a panel discussion for Black in Mathematics, York University, community students on: “ Mathematics Abstract or Absolute.” Attended in-person.* **June 10, 2023.**
6. **Canadian Mathematics Society (CMS) 2023 Summer Meeting :** *I organize a session at the Canadian Mathematics Society (CMS) Meeting on Mathematical Modelling of Ecological, Evolutionary and Infectious Disease Dynamics.*<https://cmssmc.wixsite.com/summer23/>. *Attended in-person.* **June 02-05, 2023.**
7. **Consortium of Universities for Global Health 2023 conference:** *I organized a workshop on “Fairness in Machine Intelligence for Global Health” at the consortium of Universities for Global Health 2023 conference.* <https://www.cugh2023.org/satellitesession13>. *Attended virtually-Zoom.* **April 03, 2023.**
8. **AI for Global Challenges and Lessons learned:** *I organized Global South AI4PEP Network bi-weekly lecture series. Theme: AI for Global Challenges and Lessons learned* <https://www.yorku.ca/cifal/ai4pep/>. *Attended virtually.* **Feb, 20-May 29, 2023 .**
9. **Gender Action Learning in Digital One Health Research Workshop:** *I co-organized a workshop in Nairobi-Kenya on Gender Action Learning in Digital One Health Research. Attended in-person.* **Feb. 20-24, 2023 .**
10. **Canadian Black Scientists Network BE-STEMM 2023:** *I co-organized the Canadian Black Scientists Network BE-STEMM 2023 Conference from February 1-4, 2023:* <https://be-stemm.blackscientists.ca/bestemm2023/2825870>. *Attended virtually.* **Feb. 1-4, 2023 .**
11. **2023 MfPH Early Warning Systems Workshop:** *I organized a workshop at the Fields Institute on Early Warning Systems for Emerging and Re-emerging Diseases from January 23-25:* <http://www.fields.utoronto.ca/activities/22-23/early-warning-workshop>. *Attended in-person.* **Jan. 23-25, 2023 .**
12. **Data for Policy Conference 2022:** *I organized and took part in a panel discussion on “Towards an Inclusive Data Governance Policy for the use of AI in Africa” in the Data for Policy Conference at the Evans School of Public Policy and Governance, University of Washington.* *link:* <https://members.dataforpolicy.org/2022-conference/seattle-programme/>. *Attended in-person.* **December, 10, 2022 .**
13. **United Nation General Assembly 77 (UNGA77) Science Summit interactive panel session :** *During the UNGA77 I co-organize a panel session on artificial Intelligence Research in Health: Tackling Global Challenges as One (other co-organize are: I-DAIR , the United Nations University Institute in Macau (UNU Macau), Indraprastha Institute of Information Technology Delhi (IIIT-Delhi), Universidade Federal do Rio Grande do Sul (UFRGS), the*

*Africa-Canada AI and Data Innovation Consortium (ACADIC), the University of the Witwatersrand, and the City University of New York (CUNY). Attended in-person. September, 22, 2022 .*

14. **SummerUP Mathematics program 2022 :** *I Organized a one month Mathematics workshop to inspire Grades 10, 11 and 12 students from Black Communities to think about mathematics in the right way, to help them hang on to their math skills during the summer break, to address mathematics anxiety and fill the gaps in mathematics knowledge. Attended virtually-Zoom. July 12 -Aug. 11, 2021.*
15. **Camp for Black youth: Into into Data Science.** *I organized a workshop to introduce Black youths in grades 7-10 to Data science. Attended virtually-Zoom. July 18-22, 2022.*
16. **Mini-Symposium: Big Data and AI for Public Health.** *I co-organized a mini symposium at the Canadian Industrial and Applied Mathematics 2022 Meeting on Big Data and AI for Public Health. Attended virtually. June 15, 2022.*
17. **Collaborative workshop on big data analysis of covid-19.** *In partnership with the South African Council for Scientific and Industrial Research (CSIR), Africa-Canada Artificial Intelligence and Data Innovation Consortium (ACADIC) and the University of Pretoria I organized a collaborative workshop on big data analysis of covid-19. Attended virtually-Zoom. May 30-31, 2022 .*
18. **Canadian Center for Disease Modelling (CCDM) Incubation Day 2022.** *I chair the organizing committee of the Canadian Center for Disease Modelling (CCDM) Incubation Day 2022. We organized a successful incubation Day. Attended virtually-Zoom. May 16-17, 2022.*
19. **Careers in mathematical modelling webinar.** *I organized a webinar on Careers in Mathematical Modelling at York University. Where colleagues from the industry engaged in a discussion with students on careers in mathematical modelling, and what employees look for when hiring mathematicians. Attended virtually-Zoom. March 11, 2022 .*
20. **Black History Month Webinar on “STEM and Black Wellness in Canada”** *In collaboration with The Harriet Tubman Institute, and representing ACADIC, I organized a webinar on “STEM and Black Wellness in Canada” at York University, Canada. Attended virtually-Zoom. February 28, 2022.*
21. **Conference on Discovering COVID-19 Inequalities and Systemic Vulnerabilities: the role of Artificial Intelligence.** *In collaboration with CIFAL York, and representing ACADIC, I organized a conference on Discovering COVID-19 Inequalities and Systemic Vulnerabilities: the role of Artificial Intelligence at York University, Canada. Attended virtually-Zoom. Feb 03, 2022*
22. **Panel Conversation on Building Micro-Mentorship Communities for Black Students.** *I organized a panel Session at the BE-STEMM 2022 conference on Building Micro-Mentorship Communities for Black Students .Attended virtually-Zoom. February 01, 2022.*
23. **Black Excellence in Science, Technology, Engineering, Mathematics & Medicine/Health (BE-STEMM 2022) conference.** *I co-organized BE-STEMM 2022 conference. Attended virtually-Zoom. January 31-February 2, 2022 .*
24. **SummerUP Mathematics program 2021 :** *Organized a one month Mathematics workshop to inspire Grades 10, 11 and 12 students from Black Communities to think about mathematics in the right way, to help them hang on to their math skills during the summer break, to address mathematics anxiety and fill the gaps in mathematics knowledge. Attended virtually-Zoom. July 19 -Aug. 13, 2021.*

25. **Canadian Applied and Industrial Mathematics Meeting 2021:** *Organized a mini-symposium at the Canadian Applied and Industrial Mathematics 2021 Meeting on Modelling Infectious Disease. Attended virtually-Zoom.* **June 21, 2021.**
26. **Society for Mathematical Biology Meeting 2021:** *Organized a mini-symposium at the Society for Mathematical Biology Meeting 2021: on Modelling Infectious Disease. Attended virtually-Zoom.* **June 15, 2021.**
27. **Disaster Risk Governance Webinar, York University:** *Organized a webinar series on AI for Disaster Resilience and Sustainable Development. Attended virtually-Zoom.* **April 30, 2021.**
28. **Cafe Mathématique :** *Organized and Moderated a Cafe Mathématique on Modelling COVID-19: Resurgence, Vaccines, and Disease Severity- Fields Institute. Attended virtually-Zoom.* **December 09, 2020.**
29. **Cafe Mathématique :** *Organized and Moderated a Cafe Mathématique on the Applications of Mathematics. Fields Institute. Attended virtually-Zoom.* **August 12, 2020.**
30. **Coastal SEES workshop, Rutgers University.** *Organized a workshop on marine species distribution. Attended in-person.* **May 6-8, 2019, July 9-10, 2019.**
31. **PIMS young researchers conference, University of Alberta:** *Organized a PIMS young researchers conference at the University of Alberta. Attended in-person.* **June 13-16, 2016.**
32. **“Séminaire de Mathématiques Supérieures 2016” .** *Organized a seminar series on Modelling invasive species. Attended in-person.* **May 30-June 10, 2016.**  
*at the University of Alberta.*
33. **The Alberta Student Leadership Summit.** *Organized and attended a leadership summit for students at the University of Alberta. Attended in-person.* **January 31, 2015.**
34. **Mathematics Behind Biological Invasions.** *Organized a Summer school on the Mathematics Behind Biological Invasions. Attended in-person.* **May 2013.**
35. *The Young Researcher’s workshop. I organized a Young Researcher’s workshop on Theoretical Approaches and Related Mathematical Methods in Biology and Medicine in the University of L’Aquila, Italy. Attended in-person.* **November 30-December 2, 2011.**

## Interview and Media Relations

1. **yfile :** *YFile spotlighted my approaches to supporting racialized grad students in navigating academy. December 14, 2023. <https://tinyurl.com/4rd2fty2>*
2. **yfile :** *I spoke to yfile News about my publication on “Estimation of epidemiological parameters and ascertainment rate from early transmission of COVID-19 across Africa”. September 20 , 2023. <https://tinyurl.com/5n8ppjeb>*
3. **CTV News :** *I spoke to CTV News about the projects that we are doing in the Global South: Leveraging AI for Pandemic and Epidemic Preparedness and Response Network. September 13, 2023. <https://tinyurl.com/49fse36s>*
4. **yfile :** *I spoke to yfile News about the projects that we are doing in the Global South: Leveraging AI for Pandemic and Epidemic Preparedness and Response Network. September 12, 2023. <https://tinyurl.com/ypdf36py>*
5. **Podcast :** *I was interviewed on AI4PEP podcast series: “All about Artificial Intelligence for Healthcare Systems”. <https://ai4pep.org/podcast-series/>*
6. **Quoted by yfile :** *A network I founded (AI4PEP) was was spotlighted by yfile: ”York explores research partnerships with South Africa” <https://tinyurl.com/5d7nhj96>. May 03, 2023.*

7. **Spotlighted as a leader within SDG 17:** *York University News and the office of the provost spotlighted me as a leader within SDG 17: Partnerships for the Goals through the use of AI to improve health in the global south. March 07, 2023. <https://tinyurl.com/tcmdwpsk>*
8. **tcairem spotlight:** *I was spotlighted by Temerty Centre for AI Research and Education in Medicine, University of Toronto. January 31, 2023. <https://tcairem.utoronto.ca/news/member-spotlight-dr-jude-dzevela-kong>*
9. **Yfile wrote an article on us (Black scholars across York University) joining forces to work with Black communities to build equitable, resilient governance strategies & increase Black communities' preparedness for future diseases and climate disasters.** *I was quoted in the article. December 06 2022. <https://tinyurl.com/5n8r65rw>*
10. **Data for Policy Newsletter:** *I was spotlighted by Data and policy journal in their Autumn 2022 newsletter*
11. **yfile:** *My student Haleema Ahmed, a second-year student in the Faculty of Science, was spotlighted by yfile for being part of the Prime Minister of Canada's Youth Council*
12. **CTV News: Leveraging responsible AI solutions to help gov't & communities prepare and respond to disease outbreaks and the IDRC-funded Global South AI4PEP Network ,** *Oct 30, 2022. [https://www.ctvnews.ca/video?clipId=2552980&jwsourc=fb&fbclid=IwAR2YtC8QUon5cvcFbwleIPdWZ7K3k5pJ8QisqLZELwXQIaB-d8w\\_B5x0eLI](https://www.ctvnews.ca/video?clipId=2552980&jwsourc=fb&fbclid=IwAR2YtC8QUon5cvcFbwleIPdWZ7K3k5pJ8QisqLZELwXQIaB-d8w_B5x0eLI)*
13. **The York University Magazine: Enumerating Positive Change.** *Mathematician Jude Kong inspires Black students to aspire Oct 17, 2022. <https://magazine.yorku.ca/issues/fall-2022/enumerating-positive-change/>*
14. **Phys.org: Leveraging Natural Language Processing to inform policies.** *Twitter shows lower-to-middle income countries have higher unemployment post-pandemic. August 25, 2022. <https://tinyurl.com/7muph8cm>*
15. **the Business Standard: Leveraging Natural Language Processing to inform policies.** *High unemployment rates in lower, mid income countries after Covid: Study. August 25, 2022. <https://tinyurl.com/2vnyvpx>*
16. **ANI, South Asia's Leading Multimedia News Agency: Leveraging Natural Language Processing to inform policies.** *Twitter data indicates unemployment higher in lower-to-mid income countries post-pandemic. August 25, 2022. <https://tinyurl.com/887m2vv9> Read more At: <https://www.aninews.in/news/world/others/twitter-data-indicates-unemployment-higher-in-lower-to-mid-income-countries-post-pandemic20220825021440/>*
17. **yfile: Leveraging Natural Language Processing to inform policies.** *Twitter shows lower-to-middle income countries have higher unemployment post-pandemic. August 24, 2022. <https://tinyurl.com/54b78nm4>*
18. **RISC Spotlight my work:** *RISC Scholar leads students to excel in a STEM Fellowship data science competition. August 14, 2022. <https://tinyurl.com/mwk5e3ks>.*
19. **yfile: MonkeyPox.** *Yfile spotlighted our MonkeyPox publication in which we carried out a preliminary report, collecting and synthesizing early data concerning epidemiological trends and clinical features of the ongoing outbreak and compared them with those of previous outbreaks. June 14, 2022. <https://tinyurl.com/2p9hdkje>*
20. **yfile: Improving Black futures aim of new program.** *The micro-community I created to help support Black students in the Mathematics and Statistic Department at York University was covered by yfile. March 18, 2022. <https://tinyurl.com/7f8xpuh>*
21. **yfile (People of Yu): Spotlighted as Change maker.** *I was spotlighted as a Change maker for my work in helping others learn mathematical concepts and encouraging them to find their passion and achieve more than they thought was possible. February 18, 2022. <https://www.yorku.ca/peopleofyu/2022/02/18/jude-kong-faculty/>.*

22. **FairChild tv:** *Fairchild tv interviewed me for closed to 15 minutes on the work I am doing in 19 African country: “Using Artificial Intelligence and Mathematical Modelling to help Government and local communities to contain and manage the spread of COVID-19. March 09, 2022. [https://www.fairchildtv.com/newsarchive\\_detail.php?n=28](https://www.fairchildtv.com/newsarchive_detail.php?n=28).*
23. **Canada’s Innovation Leaders 2021:** *I was spotlighted among Canada’s Innovation Leaders 2021; based on the work I am doing in 9 African countries to help government and local communities to contain and manage the spread of COVID-19. March 03, 2022 <https://researchinfosource.com/pdf/CIL2021.pdf>*
24. **CTV News Interview with Angie Seth:** *Employing artificial intelligence to address inequalities and systematic vulnerabilities in our communities. March 13, 2022. <https://www.ctvnews.ca/video?clipId=2401509>*
25. **International Development Research Center (IDRC):** *I was cited in an article by the IDRC entitled “AI project delivers key pandemic data to policymakers in Africa ”. November 22, 2021. <https://tinyurl.com/2p84a4w7>*
26. **American Museum of Natural History:** *I was profile by the American Museum of Natural History. November 10, 2021. <https://tinyurl.com/mr3udx8s>*
27. **The Operational Research Society:** *Identified as one of the Black Heroes of Operational Research. October 06, 2021. <https://tinyurl.com/e292atsm>*
28. **UN Pulse lab Jakarta-Youtube:** *AI4COVID Research Overview: ACADIC, Africa. <https://youtu.be/kpLM7hMy5y0>*
29. **Diversity TV:** *Helping Black students deal with “Math anxiety” . August 27, 2021: <https://youtu.be/LJTW4GnTnj4>*
30. **Yorkfile:** *How artificial intelligence and big data are fighting COVID-19 in Africa. August 22, 2021: <https://tinyurl.com/3zb6ht9>*
31. **Toronto Star:** *York University leads team that uses artificial intelligence to fight COVID-19 in Africa. August 12, 2021: <https://tinyurl.com/4ct2jpnw>*
32. **DW News:** *COVID: Artificial intelligence in the pandemic. July 07, 2021: <https://tinyurl.com/5a76kefb>*
33. **Gewin V.** *Ways to look after yourself and others in 2021. Nature. 2020 Dec;588(7839):717-8.*
34. **CTV News-***Misinformation on social media linked to higher spread of COVID-19 in new study. June 09, 2021: <https://tinyurl.com/38zwsbf2>*
35. **The Register:-***Misinformation on social media linked to higher spread of COVID-19 in new study. June 11, 2021: [https://www.theregister.com/2021/06/11/pandemic\\_drinking\\_and\\_swearing\\_outbreak/](https://www.theregister.com/2021/06/11/pandemic_drinking_and_swearing_outbreak/)*
36. **The Thetyee:-***Misinformation on social media linked to higher spread of COVID-19 in new study. June 11, 2021: <https://tinyurl.com/2p8frxv9>*
37. **phys.org:-** *Misinformation on social media linked to higher spread of COVID-19 in new study. June 11, 2021: <https://phys.org/news/2021-06-social-media-factors-higher-covid-.html>*
38. **The eurek alert:-** *Misinformation on social media linked to higher spread of COVID-19 in new study. June 11, 2021: [https://www.eurekalert.org/pub\\_releases/2021-06/you-smu060921.php](https://www.eurekalert.org/pub_releases/2021-06/you-smu060921.php)*
39. **yfile:** *Social media use one of four factors related to higher COVID-19 spread rates early on. June 09, 2021. <https://tinyurl.com/rf44e8n2>*
40. **yfile-Next Scholars’ Hub talk offers solutions to overcome math anxiety. February 10, 2021: <https://tinyurl.com/24a64h8v>**

41. **CTV national news:** *Emerging infectious diseases, partnership between York University and Universities and Institutions across Africa, Africa-Canada Artificial Intelligence and Data Innovation Consortium. February 10, 2021: <https://tinyurl.com/5db96pe4>*
42. **yfile-** *Racism during the pandemic :<https://tinyurl.com/2cwan46>*
43. **York Alumni Youtube:** *Scholars' Hub @ Home: A family oriented approach to teaching mathematics. February 10, 2021: <https://www.youtube.com/watch?v=IP5gd11LSa0>*
44. **yfile:** *A family oriented approach to teaching mathematics. February 10, 2021: <https://tinyurl.com/55bk7m93>*
45. **York University youtube channel:** *MOU between York and Witwatersrand universities. January 27, 2021: <https://www.youtube.com/watch?v=Gk4uHrrzOL4>*
46. **York University youtube channel:** *Announcement of the project on predictive modeling and forecasting the transmission of COVID-19 in Africa using Artificial Intelligence. January 27, 2021: <https://www.youtube.com/watch?v=Y-vNQX07Nl8>*

## Publications and Citations

Citations 1361; h-index 19; i10-index 42 (Google Scholar, March 12, 2024).

### Refereed Journal Publications:

1. Sharma, Y., Laison, E. K., Philippsen, T., Ma, J., **Kong, J.**, Ghaemi, S., ... & Nasri, B. (2024). *Models and data used to predict the abundance and distribution of Ixodes scapularis (blacklegged tick) in North America: a scoping review. The Lancet Regional Health–Americas, 32.*
2. Yuh, M. N., Ndum Okwen, G. A., Miong, R. H. P., Bragazzi, N. L., **Kong JD.**, Movahedi Nia, Z., ... Patrick Mbah, O. (2024). *Using an innovative family-centered evidence toolkit to improve the livelihood of people with disabilities in Bamenda (Cameroon): a mixed-method study. Frontiers in Public Health, 11, 1190722.*
3. Nunes, M. C., Thommes, E., Fröhlich, H., Flahault, A., Arino, J., Baguelin, M., **Kong JD** ... Coudeville, L. (2024). *Redefining pandemic preparedness: Multidisciplinary insights from the CERP modelling workshop in infectious diseases, workshop report. Infectious Disease Modelling.*
4. Kaur, M., Cargill, T., Hui, K., Vu, M., Bragazzi, N. L., **Kong JD** (2024). *A Novel Approach for the Early Detection of Medical Resource Demand Surges During Health Care Emergencies: Infodemiology Study of Tweets. JMIR Formative Research, 8, e46087.*
5. Bain, L. E., Yankam, B. M., **Kong, J. D.**, Nkfusai, N. C., Badru, O. A., Ebuenyi, I. D., ... & Adeagbo, O. (2023). *Global Health Mentorship: Challenges and Opportunities for Equitable Partnership. BMJ global health, 8(11), e013751.*
6. Fonkou, M. D. M., **Kong JD** (2024). *Phage Therapy: Leveraging Machine Learning and Big Data techniques to Unveil the Evolution, Innovations, and Global Landscape in the Fight Against Antibiotic Resistance.*
7. Wu, T., Nguyen, T. N., Imrit, M. A., **Kong JD** ., Sharma, S. (2024). *Increasing fish biodiversity in high elevation Albertan lakes in response to global environmental change over the past 50 years. Frontiers in Ecology and Evolution, 11, 1129356.*
8. Kaur, M., Bragazzi, N. L., Heffernan, J., Tsisis, P., **Kong JD** (2023). *COVID-19 in Ontario Long-term Care Facilities Project, a manually curated and validated database. Frontiers in Public Health, 11, 1133419.*



9. Movahedi Nia, Z., Bragazzi, N., Asgary, A., Orbinski, J., Wu, J., **Kong JD** (2023). Mpox Panic, Infodemic, and Stigmatization of the Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, Asexual Community: Geospatial Analysis, Topic Modeling, and Sentiment Analysis of a Large, Multilingual Social Media Data. *Journal of Medical Internet Research*. 25, e45108.
10. Fevrier, K., Effoduh, J. O., **Kong JD**, Bragazzi, N. L. (2023). Artificial Intelligence, Law, and Vulnerabilities. In *AI and Society*. : 179-196.
11. Ji J, Wang H, Wang L, Ramazi P, **Kong JD**, Watmough J. Climate-dependent effectiveness of nonpharmaceutical interventions on COVID-19 mitigation. *Mathematical Biosciences*. 2023 Dec 1;366:109087.
12. Zahra Movahedi Nia, Ali Ahmadi, Bruce Mellado, Jianhong Wu, James Orbinski, Ali Asgary, **Jude D. Kong**. Twitter-based gender recognition using transformers[J]. *Mathematical Biosciences and Engineering*, 2023, 20(9): 15962-15981. doi: 10.3934/mbe.2023711
13. Avusuglo WS, Bragazzi N, Asgary A, Orbinski J, Wu J, **Kong JD**. Leveraging an epidemic-economic mathematical model to assess human responses to COVID-19 policies and disease progression. *Scientific Reports*. 2023 Aug 8;13(1):12842.
14. Movahedi Nia Z, Bragazzi NL, Ahmadi A, Asgary A, Mellado B, Orbinski J, Seyyed-Kalantari L, Woldegerima WA, Wu J, **Kong JD**. Off-label drug use during the COVID-19 pandemic in Africa: topic modelling and sentiment analysis of ivermectin in South Africa and Nigeria as a case study. *Journal of the Royal Society Interface*. 2023 Sep 13;20(206):20230200.
15. Sekkak I, Nasri BR, Rémillard BN, **Kong JD**, El Fatini M. A stochastic analysis of a SIQR epidemic model with short and long-term prophylaxis. *Communications in Nonlinear Science and Numerical Simulation*. 2023 Sep 15:107523.
16. Han Q, Bragazzi N, Asgary A, Orbinski J, Wu J, **Kong JD**. Estimation of epidemiological parameters and ascertainment rate from early transmission of COVID-19 across Africa. *Royal Society Open Science*. 2023 Sep 20;10(9):230316.
17. Nia, Z. M., Bragazzi, N. L., Wu, J., & **Kong, J. D.** (2023). A Twitter Dataset for Monkeypox, May 2022. *Data in Brief*, 109118.
18. Movahedi Nia, Z., Bragazzi, N., Asgary, A., Orbinski, J., Wu, J., & **Kong, J.** (2023). Mpox Panic, Infodemic, and Stigmatization of the Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, Asexual Community: Geospatial Analysis, Topic Modeling, and Sentiment Analysis of a Large, Multilingual Social Media Database. *Journal of Medical Internet Research*, 25, e45108.
19. Puce, L., Okwen, P., Yuh, M. N., Akah, G., Pambe Miong, R. H., **Kong, J.**, & Bragazzi, N. L. (2023). Well-being and quality of life in people with disabilities practicing sports, athletes with disabilities, and para-athletes: Insights from a critical review of the literature. *Frontiers in Psychology*, 14, 242.
20. Wu, T., Imrit, M. A., Movahedinia, Z., **Kong, J.**, Woolway, R. I., & Sharma, S. (2023). Climate tracking by freshwater fishes suggests that fish diversity in temperate lakes may be increasingly threatened by climate warming. *Diversity and Distributions*, 29(2), 300-315.
21. **Kong, J. D.**, Akpudo, U. E., Effoduh, J. O., & Bragazzi, N. L. (2023, February). Leveraging Responsible, Explainable, and Local Artificial Intelligence Solutions for Clinical Public Health in the Global South. In *Healthcare* (Vol. 11, No. 4, p. 457). MDPI.
22. Puce, L., Okwen, P., Yuh, M. N., Akah, G., Pambe Miong, R. H., **Kong, J.**, & Bragazzi, N. L. (2023). Well-being and quality of life in people with disabilities practicing sports, athletes with disabilities, and para-athletes: Insights from a critical review of the literature. *Frontiers in Psychology*, 14, 242.

23. Bragazzi NL, Han Q, Iyaniwura SA, Omame A, Shausan A, Wang X, Woldegerima WA, Wu J, **Kong JD**. Adaptive changes in sexual behavior in the high-risk population in response to human monkeypox transmission in Canada can help control the outbreak: Insights from a two-group, two-route epidemic model. *J Med Virol*. 2023 Apr;95(4):e28575. doi: 10.1002/jmv.28575. PMID: 36772860.
24. Kaur M, Bragazzi NL, Heffernan J, Tsasis P, Wu J, **Kong JD**. COVID-19 in Ontario Long-term Care Facilities Project, a manually curated and validated database. *Front Public Health*. 2023 Feb 10;11:1133419. doi: 10.3389/fpubh.2023.1133419. PMID: 36844842; PMCID: PMC9950626.
25. Bragazzi NL, **Kong JD**, Mahroum N, Tsigalou C, Khamisy-Farah R, Converti M, Wu J. Epidemiological trends and clinical features of the ongoing monkeypox epidemic: A preliminary pooled data analysis and literature review. *Journal of medical virology*. 2023 Jan;95(1):e27931.
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27. Iyaniwura, S. A., Han, Q., Yong, N. B., Rutayisire, G., Adom-Konadu, A., Mbah, O. P., ... **Kong JD**. Vaccine hesitancy hotspots in africa: An insight from geotagged twitter posts. *IEEE Transactions on Computational Social Systems*. 2023 Jan 19. do (2023). Regional variation and epidemiological insights in malaria underestimation in Cameroon. medRxiv, 2023-11.
28. Ogbuokiri B, Ahmadi A, Nia ZM, Mellado B, Wu J, Orbinski J, Asgary A, **Kong J**. Vaccine hesitancy hotspots in africa: An insight from geotagged twitter posts. *IEEE Transactions on Computational Social Systems*. 2023 Jan 19. doi: 10.1109/TCSS.2023.3236368.
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30. Lieberman B, **Kong JD**, Gusinow R, Asgary A, Bragazzi NL, Choma J, Dahbi SE, Hayashi K, Kar D, Kawonga M, Mbada M. Big data-and artificial intelligence-based hot-spot analysis of COVID-19: Gauteng, South Africa, as a case study. *BMC Medical Informatics and Decision Making*. 2023 Dec;23(1):1-5.
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36. Wang X, Han Q, **Kong JD**. Studying the mixed transmission in a community with age heterogeneity: COVID-19 as a case study. *Infectious Disease Modelling*. 2022 Jun 1;7(2):250-60.
37. **Kong J**, Mellado B, Wu J (2022). Harnessing the power of data: Artificial Intelligence -based pandemic support. UNESCO: <https://unesdoc.unesco.org/ark:/48223/pf0000380883.locale=en>.

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39. Bragazzi, N. L., Woldegerima, W. A., Iyaniwura, S. A., Han, Q., Shausan, A., Badu, K., ... **Kong JD** (2022). Knowing the unknown: The underestimation of monkeypox cases. *Insights and implications from an integrative review of the literature. Frontiers in Microbiology*, 13, 1011049.
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#### Refereed Policy Briefs:

1. **Kong J**, Mellado B, Wu J (2022). Harnessing the power of data: Artificial Intelligence -based pandemic support. UNESCO: <https://unesdoc.unesco.org/ark:/48223/pf0000380883.locale=en>.

#### Refereed book publication:

1. **Kong JD**, Kumar SS, Palumbo P. DDE models of the glucose-insulin system: a useful tool for the artificial pancreas. In *Managing complexity, reducing perplexity 2014* (pp. 109-117). Springer, Cham

2. **Kong, J. D.**, *Fevrier, K., Effoduh, J. O., & Bragazzi, N. L. (2022). Artificial Intelligence, Law, and Vulnerabilities. In AI and Society (pp. 179-196). Chapman and Hall/CRC.*

#### Conference publication:

1. **Ogbuokiri, B., Ahmadi, A., Mellado, B., Wu, J., Orbinski, J., Asgary, A., Kong, J. D.** (2022, December). *Can post-vaccination sentiment affect the acceptance of booster jab?. In International Conference on Intelligent Systems Design and Applications (pp. 200-211). Cham: Springer Nature Switzerland.*
2. **Palumbo P, Pepe P, Kong JD, Kumar SS, Panunzi S, De Gaetano A.** Regulation of the human plasma glycemia by means of glucose measurements and subcutaneous insulin administration. *IFAC Proceedings Volumes. 2013 Jan 1;46(20):524-9.*

#### Block publication

1. *The Power of Collaboration, Artificial Intelligence and Big Data in the fight against COVID-19 in Africa.* <https://tinyurl.com/5cwjwjs>

#### Other Publications

1. *Global South Artificial Intelligence and Data Innovation Newsletter* <https://ai4pep.org/news-letter-first-edition/> **June 15, 2023.**
2. *Global South Artificial Intelligence and Data Innovation podcast.* <https://ai4pep.org/podcast-series/> **May 30, 2023.**

#### Links to preprints of manuscript in press or currently being reviewed:

1. **Effoduh, J. O., Akpudo, U. E., Kong JD.** (2023). *Towards an Inclusive Data Governance Policy for the Use of Artificial Intelligence in Africa.* Available at SSRN.
2. **Ayana, G., Dese, K., Daba, H., Mellado, B., Badu, K., Yamba, E. I., ... Kong JD.** (2023). *Decolonizing global AI governance: Assessment of the state of decolonized AI governance in Sub-Saharan Africa.* Available at SSRN 4652444.
3. **Vasconcelos VV, Marquitti F, Ong T, McManus LC, Aguiar M, Campos AB, Dutta PS, Jovanelly K, Junquera V, Kong J, Krueger EH.** Rate-Induced Transitions in Networked Complex Adaptive Systems: Exploring Dynamics and Management Implications Across Ecological, Social, and Socioecological Systems. *arXiv preprint arXiv:2309.07449.* 2023 Sep 14.
4. **Qin H, Kong J, Ding W, Ahluwalia R, Morr CE, Engin Z, Effoduh JO, Hwa R, Guo SJ, Seyyed-Kalantari L, Muyingo SK.** Towards Trustworthy Artificial Intelligence for Equitable Global Health. *arXiv preprint arXiv:2309.05088.* 2023 Sep 10.
5. **Perikli N, Bhattacharya S, Ogbuokiri B, Nia ZM, Lieberman B, Tripathi N, Dahbi SE, Stevenson F, Bragazzi N, Kong J, Mellado B.** Detecting the Presence of COVID-19 Vaccination Hesitancy from South African Twitter Data Using Machine Learning. *arXiv preprint arXiv:2307.15072.* 2023 Jul 12.
6. **Avusuglo WS, Han Q, Woldegerima WA, Bragazzi N, Asgary A, Ahmadi A, Orbinski J, Wu J, Mellado B, Kong JD.** Impact assessment of self-medication on COVID-19 prevalence in Gauteng, South Africa, using an age-structured disease transmission modelling framework.
7. **Avusuglo W, Han Q, Woldegerima WA, Asgary A, Wu J, Orbinski J, Bragazzi NL, Ahmadi A, Kong JD.** COVID-19 and Malaria Co-Infection: Do Stigmatization and Self-Medication Matter? A Case for Nigeria. *A Case for Nigeria.*
8. **Bragazzi NL, Kong JD, Mahroum N, Tsigalou C, Khamisy-Farah R, Converti M.** The ongoing monkeypox epidemic urges the systematic collection of sexual orientation and gender identity data in clinical settings and in electronic health records to monitor and end LGBTQI+ health-related disparities and inequities.

9. *Bragazzi NL, Kong JD, Mahroum N, Tsigalou C, Khamisy-Farah R, Converti M, Wu J. Epidemiological trends and clinical features of the ongoing monkeypox epidemic: A preliminary pooled data analysis and.*
10. *Bragazzi NL, Iyaniwura SA, Han Q, Woldegerima WA, Kong JD. Quantifying the Basic Reproduction Number and the Under-Estimated Fraction of Mpox Cases Around the World at the Onset of the Outbreak: A Mathematical Modeling and Machine Learning-Based Study. Available at SSRN 4533567.*
11. *Kaur M, Cargill T, Hui K, Vu M, Bragazzi NL, Kong JD Leveraging social media data to inform healthcare supply-chain decisions with COVID-19 as a case study: A sentiment analysis and topic modelling approach JMIR Preprints. 2023:46087*
12. *Bragazzi, N. L., Kong, J. D., & Wu, J. (2023). Integrated epidemiological, clinical, and molecular evidence points to an earlier origin of the current monkeypox outbreak and a complex route of exposure. Available at SSRN. (Submitted to Journal of medical virology).*
13. *Bragazzi, N. L., Kong, J. D., & Wu, J. (2023). A tale of two (and more) stories: smallpox-monkeypox viruses (HIV, and other sexually transmitted diseases) interaction dynamics. ResearchGate Project: 2022 Monkeypox Epidemic. (Submitted to Journal of medical virology).*
14. *Bragazzi, N. L., Kong, J. D., & Wu, J. (2023). Monkeypox and laboratory medicine: more data are urgently needed. ResearchGate Preprint. (Submitted to Journal of medical virology).*
15. *Avusuglo, W., Han, Q., Woldegerima, W. A., Bragazzi, N. L., Ahmadi, A., Asgary, A., ... & Kong, J. D. (2023). COVID-19 and malaria co-infection: do stigmatization and self-medication matter? A mathematical modelling study for Nigeria. A mathematical modelling study for Nigeria (April 21, 2022). (Submitted to Scientific Reports).*
16. *Nia, Z. M., Ahmadi, A., Mellado, B., Wu, J., Orbinski, J., Agary, A., & Kong, J. D. (2023). Twitter-Based Gender Recognition Using Transformers. arXiv preprint arXiv:2205.06801. (Submitted to Pattern Recognition Letters).*
17. *Sekkak I, Kong JD, El Fatini M. Containing and Managing an Emerging Disease Outbreak: A Stochastic Modelling Approach. Available at SSRN. 2023 Feb 17. (Submitted to SIAM Journal on Applied Mathematics).*
18. *Naderi PT, Asgary A, Kong J, Wu J, Taghiyareh F. COVID-19 Vaccine Hesitancy and Information Diffusion: An Agent-based Modeling Approach. arXiv preprint arXiv:2109.01182. (Submitted to Scientific Reports).*
19. *Sott MK, da Silva Nascimento L, Foguesatto CR, Furstenau LB, Faccin K, Zawislak PA, Mellado B, Kong JD, Bragazzi NL. Agriculture 4.0 and Smart Sensors. The Scientific Evolution of Digital Agriculture: Challenges and Opportunities. (Submitted to Sensors).*
20. *Guelmami N, Chalghaf N, Wu J, Kong JD, Mellado B, Jahrami H, Ben Khalifa M, Amayra T, Azaiez F, Bragazzi NL. Social Media COVID-19 Information and Vaccine Decision: A Latent Class Analysis. Available at SSRN 3841301. (Submitted to BMC Medical Informatics and Decision Making).*
21. *David JF, Iyaniwura SA, Yuan P, Tan Y, Kong JD, Zhu H. Modeling the potential impact of indirect transmission on COVID-19 epidemic. medRxiv. (Submitted to Bulletin of Mathematical Biology).*

*In Teaching part, before York, make it clear whether you are teaching a course or serving as a tutor or a teaching assistant*



## TEACHING

York University, Canada January 2022- April 2022  
SC/MATH 4090: Mathematical Modelling

York University, Canada September 2021- December 2021  
SC/MATH 3271: Partial Differential Equations

York University, Canada September 2020- April 2021  
SC/MATH1505 C- Mathematics for the Life and Social Sciences (Full Year, 2020-2021)

York University, Canada January-April 2020  
SC/MATH1025 N -Applied Linear Algebra

Rutgers University, USA January-April 2018  
Design and Analysis of Data Structures and Algorithms (CS513) to graduate students (taught the course).

University of Alberta, Canada September 2012-August 2017.  
Maths 201 (Ordinary Differential Equations; taught the course), Maths 209 (Calculus III; taught the course) and Maths 300 (Partial Differential Equations; served as teaching assistant and tutor).

Athabasca University, Canada September 2015-2018  
Ordinary and Partial Differential Equations courses (Math 376 and Math 476) (taught the course).

University of Buea, Cameroon October 2008- February 2009.  
Co-taught Calculus I. Shared responsibilities for lectures, tutorials, exams, homework assignments, and grades.

Government Secondary School-Great Soppo, Buea, Cameroon Sept 2006 - July 2010.  
Taught Mathematics to Secondary School students.

## Teaching release :

1. 2020/2021: 0.5 FCE release
2. 2021/2022: 0.5 FCE release
3. 2022/2023: 1 FCE release

## SERVICE

ASSIGNMENTS AND  
OTHER  
CONTRIBUTIONS

## Ph.D. Examiner

- Weicheng Qian Status: defended; 2022; Department of Computer Science; University of Saskatchewan, Canada; Title: **Transmission Modeling with Smartphone-Based Sensing**
- Irene Nandutu Status: defended; 2023; Department of Mathematics; Rhodes University, South Africa; Title: **Wildlife-vehicle collisions mitigation measures using road ecological data and deep learning**
- Jemisa Sadiku; Status: defended; 2020; Department of Mathematics and Statistics, York University; Title: **DYNAMICAL MODELING AND DATA CLUSTERING WITH APPLICATIONS TO TICK POPULATION DYNAMICS AND FINANCE.**
- Mahnaz Alavinejad; Status: defended; 2020; Department of Mathematics and Statistics, York University; Title: **Renewal Equations Applied to Evaluation of Interventions for the Control and Prevention of Infectious Diseases**
- Marco Tosato; Status: defended; 2022; Department of Mathematics and Statistics, York University; Title: **MODELING THE IMPACT OF ENVIRONMENTAL FACTORS, DIAPAUSE AND CONTROL STRATEGIES ON TICK AND TICK-BORNE DISEASE DYNAMICS**

- *Jiaqi Shi*; **Status: defended; 2023**; *Department of Chemistry, York University. Title: Alkylidene Dihydropyridines useful intermediates for functionalization of 4-Alkylpyridines*
- *Tino Kreutzer*; **Status: Defended; 2023**; *School of Health Policy & Management, York University. Title: Deeper Understanding: Addressing Methodological Constraints and Ethical Implications of Humanitarian Needs Assessments Using Natural Language Processing*
- *Irene Nandutu*; **Status: Defended; 2023**; *Department of Computer Sciences, Rhodes University, South Africa. Title: Wildlife-vehicle collisions mitigation measures using road ecological data and deep learning*
- *Hanako Smith*; **Status: Defended; 2023**; *Department of Communication and Media Studies & York-Toronto, Canada. Title: Patient Experience and Virtualized Healthcare: Thematic analyses of news, scientific literature, and user experience discourses*

#### Ph.D. Supervisory Committee

- *Elaheh Abdollahi*; **Status: in progress.** *Department of Mathematics and Statistics, York University; Title: Assessing the potential impact of therapeutic vaccine candidates for treatment of Mycobacterium tuberculosis using agent-based modelling*
- *Mina Shafadeh*; **Status: in progress.** *Department of Mathematics and Statistics, York University.*
- *Ruma Mahmuda*; **Status: in progress.** *Department of Mathematics and Statistics, York University.*
- *Bushra Majeed*; **Status: in progress.** *Department of Mathematics and Statistics, York University.*
- *April Ryan*; **Status: in progress.** *Faculty of Education, York University.*
- *Ali Selseleh*; **Status: in progress.** *Department of Mathematics and Statistics, York University.*
- *Moulik Aritra*; **Status: in progress.** *College of Social Work, the University of Tennessee*
- *Yi Tan*; **Status: in progress.** *Department of Mathematics and Statistics, York University.*

#### MSc. Supervisory Committee

- *Mahreen Tariq*; **Status: defended; 2020.** *Department of Mathematics and Statistics, York University; Title: UNDERSTANDING THE EFFECT OF INTERVENTIONS ON TRANSMISSION DYNAMICS OF EMERGING DISEASES: A CASE STUDY OF COVID-19 PANDEMIC*
- *Arma Khan*; **Status: defended; 2022.** *Mechanical Engineering, York University; Title: A NUMERICAL MODELLING APPROACH TO STUDY THE IMPACT OF VENTILATION CONFIGURATIONS ON AIRBORNE TRANSMISSION IN INDOOR ENVIRONMENTS*
- *Erica Fellin*; **Status: in progress;** *Department of Biology, McGill University. Title: Vector-borne infectious diseases: modeling the current and future risks for outdoor workers.*
- *Thomas Luik*; **Status: defended; 2023.** *Department of Mathematics and Statistics, York University; Title: MODELLING THE EFFECTS OF STRESSORS AND TREATMENT IN A HONEYBEE COLONY: EXPLORING THE DYNAMICS OF A SOCIAL CONTAGION MODEL.*

EPI Curriculum Committee Dalla Lana School of Public Health; Epidemiology Division, University of Toronto  
 present 2024-

**Graduate admission Committee** Dalla Lana School of Public Health; Epidemiology Division,  
University of Toronto **2024- present**

**YUFA -Community Projects,** York University **2020- present**

**Competitions Committee (MCM/ICM),** York University **2020- present**

**High School Liaison and Recruiting Committee,** York University **2020- present**

**Industrial Outreach Committee,** York University **2020- present**

**Race Equity Caucus (REC) Committee** York University, **2020- present**

**Executive Director:** Global South Artificial Intelligence for Pandemic and Epidemic Prepared-  
ness and Response Network **August 2022-present**  
Canada

**Director:** Africa-Canada Artificial Intelligence and Data Innovation Consortium **January**  
**2020-present**  
Canada

**Executive Director:** Global South AI4PEP Network **Augusts 2022-present**  
Canada

**Mentor:** The STEM Fellowship Data Science Challenge **May 2021-present**  
Canada

**Mentor** Judge IgNITE Medical Case Competition: **March 2021**  
Canada

**Mentor:** The STEM Fellowship Data Science Challenge **May 2020-July 2020.**  
Canada

Students 2 Science: Building Tomorrow's **September 2017 -present.**  
STEM Leaders, Today, US

**Vice president:** University of Alberta Mathematical and **April 2015 -March 2017.**  
Statistical Sciences Graduate Students Association, Canada

**Volunteers' Leader:** **April 2015 -September 2016.**  
International Student Services (ISS), University of Alberta, Canada

**Concillor-at Large:** **April 2014-April 2016.**  
University of Alberta Graduate Students' Association

**International Student Advisory Council (ISAC):** **August 2014 - August 2015.**  
International Student Services (ISS), University of Alberta, Canada

**Coordinator:** Erasmus Mundus Students' and **August 2011-August 2014.**  
Alumni's Association(EMA) Central Africa Subregional Chapter

**President:** **May 2005-May 2006.**  
Advanced Teacher's Training College Annex Bambili , Cameroon

**Outreach activities to promote high school mathematical modelling across Canada**

1. **High school Blacks Mathematical Modelling Clubs.** *In partnership with Durham Catholic District School Board, I set up and run weekly mathematical modelling clubs in high schools across Durham Catholic District Schools (2024 -present.)*
2. **Weekly “Ask a Mathematician” outreach** *to elementary, and high schools in economically disadvantaged communities (2020 -present.)*
3. **SummerUp program (in the summer: runs for one month, everyday, and 3 hours a day).** *The aim is to inspire Grades 11 and 12 students to think about mathematics in the right way, help them hang on to their math skills during the summer break, address mathematics anxiety, and fill gaps in their mathematics knowledge. (2020 -present.)*
4. **Supporting Black Students in the Department.** *I have created a community to support Black students in the Mathematics Department at York University. During the Fall and Summer semesters, I meet with them twice a week (2020 -present.).*

LANGUAGES English, French, Pidgin English, Lamnso, Italian(A2), German (A1)

COMPUTER SKILLS Programming Languages:

- *Python and Julia.*

Specialised Software:

- *MATLAB, Mathematica, R, STATA, SAS, SPSS.*