

## Education

### • Ph.D. Pure Mathematics

Jaramogi Oginga Odinga University of Science and Technology, Kenya, 15 Nov 2021–18 Oct 2024.

Thesis: *On Density and Dentability in Norm-Attainable Classes*

Advisors: Prof. B. Okelo, Dr. J. Owino, Dr. J. Kinyanjui.

€3800 CIMPA Travel Grants

### • M.Sc. Mathematical Science (Distinction)

University of Stellenbosch and AIMS South Africa, 26 Aug 2019–23

Jun 2020, Thesis: *Lie Group Analysis of Nonlinear Coupled System of KdV Equations*

Advisor: Prof. C. M. Khalique, \$ 25000 AIMS Scholar-14 May 2019

### • B.Sc. Mathematics (First Class Honors)

University of Nairobi, Kenya, 14 Sep 2014–18 Dec 2018.

Thesis: *An Analysis of the Heat Equation*

Advisor: Dr. C. Nyandwi

\$100 Gadhi Smarak Nithi Prize, 21 May 2021, \$1000 Chinese Ambassador Scholar, November 2017, \$50 KASNEB Prize, 10 May 2019.

## Academic Appointments

4. **Teaching Assistant (Tutor) for Msc. in Mathematical Sciences**  
AIMS Ghana

3. **Tutorial Fellow**, Technical University of Kenya,  
1st Dec 2021–24th Aug 2025

2. **Adjunct Faculty**, United States International University Africa  
May 2021–Aug 2025

1. **Board of Management Member**  
St. Monica Mago Mixed Secondary School, Jan 2025–Present.

## Technical Skills

- **Programming:** Python, SageMath, Julia, R, Qiskit.
- **Symbolic Mathematics:** Wolfram Mathematica, Maple, Singular.
- **Scientific Computing:** MATLAB, Octave, Scilab, L<sup>A</sup>T<sub>E</sub>X, Git, Linux.

## Journal Papers

3. On density and dentability in Hilbert spaces, *Scientific African-Elsevier*, 2025.

2. Density and dentability in norm-attainable classes, *Scientific African-Elsevier*, 2025.

1. On The Interrelation Between Density and Dentability in Norm-Attainable Classes of Operators over a Banach algebra, *La Matematica-Springer*, 2025.

## Conferences

7. On Fourier Transform of a Binomial  $K$ –Fibonacci Sequence, 8th Int. Conf., Kirinyaga Univ., Kenya, Mar 2025.

6. On Interrelationship Between Density and Dentability..., 7th Int. Conf., Kirinyaga Univ., Kenya, Mar 2024.

5. A mathematical model for differentiation of crime in the presence of police corruption, Applied Mathematics Research School, Malawi Univ., Jan-Feb 2024.

4. Summing the  $\mu(n)$  in Sage, Women in Sage Workshop, Makerere Univ., Sep 2023.

3. CIMPA School: Coding Theory and Its Applications, Mzuzu Univ., Aug 2023.

2. A mathematical model of crime with cooperation, Jumuia Conference and Country Home, Jul 17-28 2023.

1. Attended the International Congress of Mathematicians, Online, Jul 2022.

## Grants & Awards

7. ICM2026 Travel Support Award ,Simons Foundation, for International Congress of Mathematicians 2026, Philadelphia, USA.

6. €700 Grant, Applied Mathematics Research School, University of Malawi (Jan–Feb 2025).

5. €700 Grant, Malawi Research School, Malawi University of Business and Applied Sciences (Jan–Feb 2024).

4. \$300 IMU Grant, Women in Sage Workshop, Makerere University (Sep 2023).

3. €1,200 CIMPA Grant, Coding Theory School, Mzuzu University (Aug 2023).

2. €700 CIMPA Grant, Chemical Reaction Networks, Kenya (Jul 2023).

1. €1,200 CIMPA Grant, Contemporary Geometry, University of Namibia (Jan 2023).

## Conferences Organized

2. Co-organizer of International Data Science Summit, USIU-Africa, Feb 2025.

1. Co-organizer of *Curriculum Review: BSc Data Science and Analytics Online/Blended*, USIU-Africa, Jun 2023.

## Scientific Responsibilities

3. Editor at Journal African Research Reports, Oct 2025–Present.

2. Reviewer at International Journal of Fuzzy Logic and Intelligent Systems, Oct 2025–Present.

1. Reviewer at Sigma Journal of Engineering and Natural Sciences, Nov 2024–Present.

## Referees

1. **Dr. Geoffrey Mboya** - geoffrey.mboya94@gmail.com

2. **Prof. Benard Okelo** - bnyaare@yahoo.com

3. **Prof. Patrick Kanyi Wamuyu** - pwamuyu@usiu.ac.ke