# CURRICULUM VITAE

## JAMES WAMWENGE WANGUI

Phone: 0799299707                                               3253-20100
jwamwenge@uonbi.ac.ke                               Nakuru, KE  20100
wamwengejames@gmail.com

### EDUCATION

**PhD**   University of Nairobi, (Provisional application)                     Current
Dissertation: "Numerical Solution of the Replicator Equations; a deterministic monotone non-linear and non-innovative game dynamic for different agents (species) and their interactions."
Committee: Dr Victor Juma, Dr Hudson Were,

**MSc**   University of Nairobi, Applied Mathematics                December 2021
Thesis: "Numerical Solutions of PDEs of conservation laws"
Advisor: Dr Victor Juma, Dr James Okwoyo

**BSc**   University of Nairobi, Mathematics                          December 2018
First Class Honor
Minored in Mathematics

**Cert**   University of Nairobi, Statistical Packages                          May 2017
Distinction
MATLAB, STATA, SQL, SPSS, RQUI

### HONORS AND AWARDS

**University of Loughborough Research grant**                     2021–2022
Funded group research in Spatial Malaria Modelling in Rift Valley

**University of Nairobi fully funded Scholarships**                2019- 2021
First Class Academic Scholarship to pursue Msc (Applied Mathematics)

**Best Overall Student**                                                                2018
Recognized as the best performed student of academic year 2017/2018

James Wamwenge

## RESEARCH EXPERIENCE

**Numerical Solutions for PDEs of Conservation Laws**, University of Nairobi, Kenya 2019
Advisor: Dr Victor Juma, Dr James Okwoyo

- Mathematical modelling
- Numerical analysis
- Data collection
- Data analysis

### *PUBLICATION(S)*

1. Wangui, J.W., 2021. *Numerical Solutions for Partial Differential Equations of Conservation Laws* (Doctoral dissertation, University of Nairobi).
http://erepository.uonbi.ac.ke/handle/11295/155823

## TEACHING EXPERIENCE

**Murang'a University of Technology**,                          **Jan**.**2024** to **Present**
**Tutorial fellow**, Department of Mathematics and Actuarial Science

- Teaching Calculus (1,2), Applied mathematics, Complex Analysis I, Introduction to Statistics and Probability, Basic Mathematics, Linear Programming I, Elements of Mathematics, Engineering Mathematics
- Curriculum development and review
- Developing quizzes, exams, and homework
- Revising the syllabus to meet accreditation standards

**University of Nairobi**,                          **Jan**.**2021** to **Present**
**Part-time Lecturer**, Department of Mathematics

- My Courses: Calculus (1,2), Applied mathematics, Complex Analysis I, Introduction to Statistics and Probability, Basic Mathematics, Linear Programming I, Elements of Mathematics, Engineering Mathematics IIIB.
- Developing quizzes, exams, and homework
- Revising the syllabus to meet accreditation standards

**Master Student Advised**
Sharon Chepkurui, "Penne's Bioheat Equations", Graduated                          **Dec**.**2022**

**Domus Marie Secondary School**                          **Apr**.**2017** to **Sept**.**2017**
Mathematics Teacher,

## INSTITUTIONAL RESPONSIBILITIES

**Secretary General**; Mathematics Association of Nairobi University   **Jan. 2016 – Nov. 2018**

- Ensuring meetings are effectively organized and minuted
- Maintaining effective records and administration
- Communication and correspondence

James Wamwenge

**Patron Christian Union**; Domus Marie Secondary School          **Apr.2017** to **Sept.2017**

- Ensuring students follow the Christianity doctrines as required by the school

## LANGUAGES

**English**: Fluent

**Swahili**: Advanced Reading and Writing

## MEMBERSHIPS

- Society for Industrial and Applied Mathematics
- Mathematics Association of Nairobi University

## INTEREST AND HOBBIES

Swimming
Soccer
Rugby

## REFERENCES

**Dr. Victor O. JUMA**, Senior Lecturer, Supervisor
Department Of Mathematics
University of Nairobi
Phone: +254 715695147
Email: vjuma23@gmail.com

**Dr Hudson Were**, Senior Lecturer,
Department Of Mathematics
University of Nairobi
Phone: +254 112663321
Email: h_jamen@uonbi.ac.ke

Dr. Okwoyo Mariita, Senior Lecturer, Supervisor
University of Nairobi
Kenya Phone: +254 763940245
Email: okwoyomariita@gmail.com

James Wamwenge