



*Inspiring Innovation and Leadership*

## KARATINA UNIVERSITY

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### STAFF PROFILE

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1. **Name:** [David Mwanzia Musyoka]

2. **Designation:** [Tutorial Fellow]

3. **Employment details**

School: [Pure and Applied Sciences]

Department: [Mathematics, Statistics and Actuarial Science]

4. **Contact Information**

**Email Address** (dmusyoka@karu.ac.ke, davidmwanzia21@gmail.com):

**Research Links:**

[https://scholar.google.com/citations?view\\_op=new\\_articles&hl=en&imq=David+Mwanzia+Musyoka#](https://scholar.google.com/citations?view_op=new_articles&hl=en&imq=David+Mwanzia+Musyoka#)

4. **Describe your professional self**

I am David Mwanzia Musyoka, a dedicated mathematician with a passion for exploring the intricate realms of pure mathematics. My academic journey commenced at Karatina University, where I earned my First Degree in 2014 with First Class Honors, setting the foundation for my pursuit of mathematical excellence. Subsequently, I furthered my education at Kenyatta University, obtaining a Master's degree in Pure Mathematics in 2019. This academic milestone equipped me with a profound understanding of the subject and fueled my desire to delve deeper into advanced mathematical concepts.

Currently, I am immersed in the challenging yet intellectually exhilarating realm of doctoral studies at Kenyatta University. My research focus involves investigating the Character Tables of split extension groups associated with prominent mathematical entities, such as The Monster group, The orthogonal group of dimension 8 over  $GF(3)$ , and the Unitary group  $U(2n, q)$ , among others. This intricate exploration reflects my commitment to contributing valuable insights to the mathematical community.

In tandem with my doctoral pursuits, I am honored to serve as a Tutorial Fellow at Karatina University, within the School of Pure and Applied Sciences (SPAS) under the Department of Mathematics, Statistics, and Actuarial Science (MS&AS). In this capacity, I actively engage in shaping the mathematical minds of the next generation, imparting knowledge in areas such as Discrete Mathematics, Calculus, Real Analysis, and Abstract Algebra. My dual roles as a researcher and educator underscore my dedication to both advancing the frontiers of pure mathematics and nurturing the mathematical talents of aspiring students.

5. **Area/ Field of specialization:** [Pure Mathematics, Representation Theory]

6. **Research interests:** [Representation Theory]

7. List some of your key published works.

1. On a quotient group  $7^4:(3 \times 2S_7)$  of a 7-local subgroup of the Monster  $M$ . <https://pjm.ppu.edu/paper/1246-quotient-group-7-4-3-%C3%97-2s7-7-local-subgroup-monster-m>

2. *On a Maximal subgroup of the Orthogonal Group,  $O_8(3)$ .*

[https://www.scielo.cl/scielo.php?script=sci\\_arttext&pid=S0716-09172022000100137](https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0716-09172022000100137)

3. *On a Maximal Subgroup  $5^4:((3 \times 2L_2(25)):2_2)$  of the Monster  $M$*

[https://scholar.google.com/citations?view\\_op=view\\_citation&hl=en&user=TF1gBOKAAAAJ&citation\\_for\\_view=TF1gBOKAAAAJ:YOWf2qJgpHMC](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=TF1gBOKAAAAJ&citation_for_view=TF1gBOKAAAAJ:YOWf2qJgpHMC)

Peer-reviewed Publications

NONE.