

Personal Details

Name: **Dr. Stanley Kiplagat Rotich**

Gender: **Male**.

Nationality: **Kenyan**.

Address: **Machakos University. Department of Mathematics. P.O. Box 136-90100, Machakos, Kenya.**

Contacts: **Cell:** +254 724 364 660, **Email:** starotich@gmail.com.

Languages: **Kalenjin, English and Swahili.**

Education

2013–2016 Doctorate, Kenyatta University.

Grade: **Good**

Thesis Title: **cycle index, subdegrees and suborbital graphs of $PGL(2, q)$ acting on the cosets of its subgroups.**

Supervisors: Prof. Kamuti Ileri & Dr. Jane Rimberia.

Description: We investigated the action of $PGL(2, q)$ on the cosets some of its subgroups namely; C_{q-1} , C_{q+1} , P_q , A_4 , A_5 and $D_{2(q-1)}$. Corresponding to each action we obtained disjoint cycle structures, cycle index formulas, ranks and the subdegrees. We established that the action of $PGL(2, q)$ on the cosets of C_{q-1} the subdegrees are shown to be 1^2 and $(q-1)^{(q+2)}$ and the rank is $q+4$. For P_q the subdegrees are $1^{(q-1)}$ and $q^{(q-1)}$ and the rank is $2(q-1)$. Suborbital graphs for $PGL(2, q)$ acting on the cosets of C_{q-1} are constructed and their properties analysed. We have established that the number of self paired suborbits is $q+2$ and the paired suborbits are 2.

2006–2008 M.Sc., Pure Mathematics Kenyatta University, Nairobi, Kenya.

Grade: **Good**

Supervisor: Prof Kamuti Ileri

Project Title: Some properties of symmetric group S_7 acting on ordered and unordered pairs and associated combinatorial structures

Description: We find the rank, suborbits and suborbitals of S_7 . We also construct suborbital graphs corresponding to suborbitals of S_7 then find the cycle indices of $S_7^{(2)}$ and $S_7^{[2]}$. Finally we compute the counting series for unlabelled graphs with seven vertices and construct some of the graphs.

2000–2004 B. Education Science (Mathematics Major), Moi niversity, Nairobi, Kenya.

Second Class Honours Upper Division

Description Major: *Mathematics*. Minor: *Chemistry*

Experience

Leadership Experience

October 2015–Date

Chairman: Department of Mathematics and Statistics Machakos.

Overall Responsibilities: general management of the department Programs, resources and servicing mathematics units to other faculties within the university.

October 2013–June 2014

Chairman Department of Mathematics and Actuarial Science South Eastern Kenya University.

Overall Responsibilities: general management of the resources and programs of the department.

July 2009–May 2010

Exam Coordinator: *Kampala international University, Kampala Uganda.*

Overall Responsibilities: Smooth running of exam section in the school of Engineering and Applied Sciences.

June 2011–May 2011

Coordinator Teaching Practice: *Kampala international University, Kampala Uganda.*

Overall Responsibilities: Supervise the teaching practice exercise for the university in Kenya.

December 2007–December 2007

Deputy Presiding Officer: Electoral Commission of Kenya

Overall Responsibilities: Ensure smooth running of electoral process in the polling station.

November 2005–September 2006

Assistant Manager: Baringo Central Constituency Office

Overall Responsibilities: Running the daily activities of the office.

Teaching Experience

October 2016–Present

Lecturer: Machakos University, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

June 2015- October 2016

Assistant Lecturer: Machakos University, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

September 2015–Present

Sessional Lecturer: South Eastern Kenya University, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

September 2015–Present

Sessional Lecturer: Kiriri women's University of Science and Technology, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory and Group Theory.

May 2010–June 2015

Assistant Lecturer, South Eastern Kenya University, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

July 2009–May 2010

Assistant Lecturer, Kampala International University, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

May 2008–July 2009

Assistant Lecturer, Kiriri Womens' University of Science and Technology, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory, Measure Theory, Linear Algebra Complex Analysis Group Theory.

May 2009–August 2009

Sessional Lecturer: Kenya Methodist University, Teaching and Supervision

Areas: Linear Algebra, Foundation Mathematics.

January 2009–April 2009

Sessional Lecturer: Moi University, Teaching and Supervision

Areas: Real Analysis.

September 2013–April 2014

Sessional Lecturer: Kenyatta university, Teaching and Supervision

Areas: Topology, Real Analysis, Field Theory and Group Theory.

Publications

2017.

Rotich S. *Cycle indices of $PGL(2, q)$ acting on the cosets of its subgroups.* International Journal of Science and Research(Accepted)

Rotich S. *Ranks and subdegrees of $G = PGL(2, q)$ on the cosets of its subgroups.* International Journal of Science and Research (Accepted)

Rotich S. *Suborbital graphs corresponding to permutation representations of $PGL(2, q)$* . International Journal of Applied Mathematical Sciences. (Accepted)

Rotich S. *Some properties of Symmetric Group S_7 Acting on Ordered and Unordered pairs and the associated Combinatorial Structures*. International Journal of Applied Mathematical Sciences. (Accepted)

Academic Supervisions-Masters Level.

1. Kavita P. M. *Effects of ICT integration in the teaching of Mathematics on students performance in Kenya Certificate of Secondary Education in Mbooni-East Sub county, Makueni County, Kenya. Expected to graduate 2018.*

Awards

NACOSTI grant for PhD. research.

Academic Interests

- Mathematical Modeling of Natural Phenomena in Science and Engineering

Community Service

Chairman Board of Management: Tuiyotich Day Secondary School.

Overall Responsibilities: Oversee the running the institution.

Chairman Board of Management: Koitilil Primary School.

Overall Responsibilities: Oversee the running the institution.

Member Board of Management: Ngarie Day Secondary School.

Overall Responsibilities: In charge of Academic division, ensure the smooth running of exam section.

HOBBIES

- Reading novels
- Community based work
- Picnics
- Traveling extensively
- Jokes/making friends

REFEREES

Prof. Ileri. N. Kamuti

Masters and PhD. Supervisor

Senior Lecturer

Kenyatta University

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Dr. Patrick Kisangau

Director Wote Campus

South Eastern Kenya University

P.O. Box 170

Kitui.

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Dr. Stephen Mailu

Dean School of Pure and Applied Sciences

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